COAXIAL, TRIAXIAL, MULTI & MIXED CONNECTORS

SHORT FORM CATALOGUE



Precision modular connectors to suit your application

Since it’s creation in Switzerland in 1946 the LEMO Group has been recognized as a global leader of circular Push-Pull connectors and connector solutions. Today LEMO and its affiliated companies, REDEL and COELVER, are active in more than 80 countries with the help of over 40 subsidiaries and distributors.

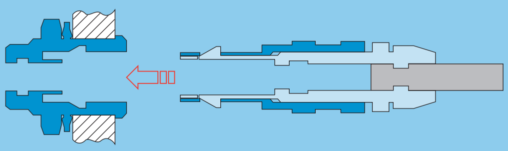
Over 50’000 connectors

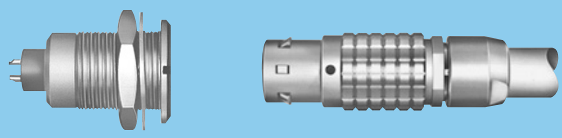
The modular design of the LEMO range provides over 50’000 connectors from miniature ø 3 mm to ø 50 mm, capable of handling cable diameters up to 30 mm and for up to 114 contacts.

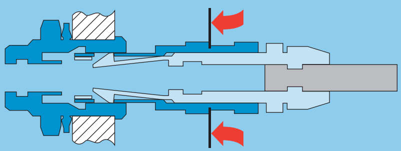
This vast portfolio enables you to select the ideal connector configuration to suit almost any specific requirement in most markets, including medical devices, test and measurement instruments, machinery, audio video broadcast, telecommunications and military.

LEMO’s Push-Pull Self-Latching Connection System

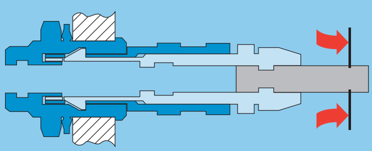
This self-latching system is renowned worldwide for its easy and quick mating and unmating features. It provides absolute security against vibration, shock or pull on the cable, and facilitates operation in a very limited space.



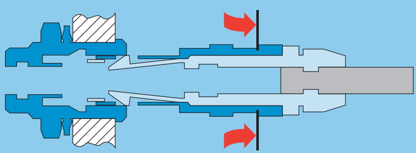




The LEMO self-latching system allows the connector to be mated by simply pushing the plug axially into the socket.



Once firmly latched, connection cannot be broken by pulling on the cable or any other component part other than the outer release sleeve.



When required, the connector is disengaged by a single axial pull on the outer release sleeve. This first disengages the latches and then withdraws the plug from the socket.

UL Recognition

LEMO connectors are recognized by the Underwriters Laboratories (UL). The approval of the complete system (LEMO connector, cable and your equipment) will be easier because LEMO connectors are approved.

CE marking CE

CE marking CE means that the appliance or equipment bearing it complies with the protection requirements of one or several European safety directives. CE marking CE applies to complete products or equipment, **but not to electromechanical components, such as connectors**.

RoHS

LEMO connector specifications exceed the requirements of the RoHS directives (2002/95/EC) of the European Parliament and the latest amendments. This directive specifies the restrictions of the use of hazardous substances in electrical and electronic equipment marketed in Europe. LEMO guarantees that its connectors are free of mercury, cadmium, lead, hexavalent chromium and polybromide biphenyl (PBB), polybromide diphenyl ether (PBDE), or DecaBDE.

Introduction

This catalogue gives the complete description of LEMO connectors with coaxial, triaxial and mixed contacts. Mixed contacts include coaxial and low voltage contact configurations, as well as multi-coaxial contact configurations.

The LEMO manufacturing programme has been extended to almost 40 series divided into 7 product families with specific mating and environmental characteristics. Each series includes a wide variety of plug, socket and coupler models, available in contact configurations adapted to all round cables. The catalogue includes the B, K, S and E Series of the LEMO product range. In addition the 00 Series (triaxial) connector is also represented.
Watertight and vacuumtight models are also available. Since LEMO connectors are perfectly screened and designed to guarantee very low resistance to shell electrical continuity, they are particularly adapted to applications where electromagnetic compatibility (EMC) is important.

Material and treatment

Component	Material (Standard)	Surface treatment (µm)										Notes
		chrome			nickel		gold			black chr.		
		Cu	Ni	Cr	Cu	Ni	Cu	Ni	Au	Ni	Cr	
Outer shell, collet nut, conical nut or notched nut and oversized collet	Brass (UNS C 38500)	0.5	3	0.3	0.5	3	0.5	3	0.5	1	2	
	Stainless steel (AISI 303, 304 or 316L)	without treatment										
	Aluminium alloy (AA 6262A or AA 6023)	anodized										
	POM (Delrin® or Ertacetal®), Polyoxymethylene, black	–										1)
	PEEK, Polyether ethercetone, beige	–										2)
	PSU (Udel®), Polysulfone, grey or white	–										3)
	PPSU (Radel®), Polyphenylsulfone, cream	–										3)
	PPS (Ryton®), Polyphenilene sulfide, brown	–										4)
Earthing crown	Bronze (UNS C 54400) or special brass	–	–	–	0.5	3	0.5	3	1.0	–	–	5)
	Beryllium Copper (UNS C 17300)	–	–	–	0.5	3	0.5	3	1.0	–	–	6)
	Stainless steel (AISI 416 or 316L)	without treatment										7)
Latch sleeve	Special brass	0.5	3	0.3	0.5	3	0.5	3	0.5	–	–	
	Stainless steel (AISI 416 or 316L)	without treatment										7)
Locking washer	Bronze (UNS C 52100)	–	–	–	0.5	3	0.5	3	0.5	–	–	
Hexagonal or round nut	Brass (UNS C 38500)											
	Stainless steel (AISI 303, 304 or 316L)	without treatment										8)
	Aluminium alloy (AA 6262A or AA 6023)	anodized natural										8)
Other metallic components	Brass (UNS C 38500)	–	–	–	0.5	3	0.5	3	0.5	–	–	
	Stainless steel (AISI 303, 304 or 316L)	without treatment										
O-ring and gaskets	Silicone MQ/MVQ or FPM/FKM (Viton®)	–										9)
Sealing resin	Epoxy (Araldite® or Stycast®)	–										

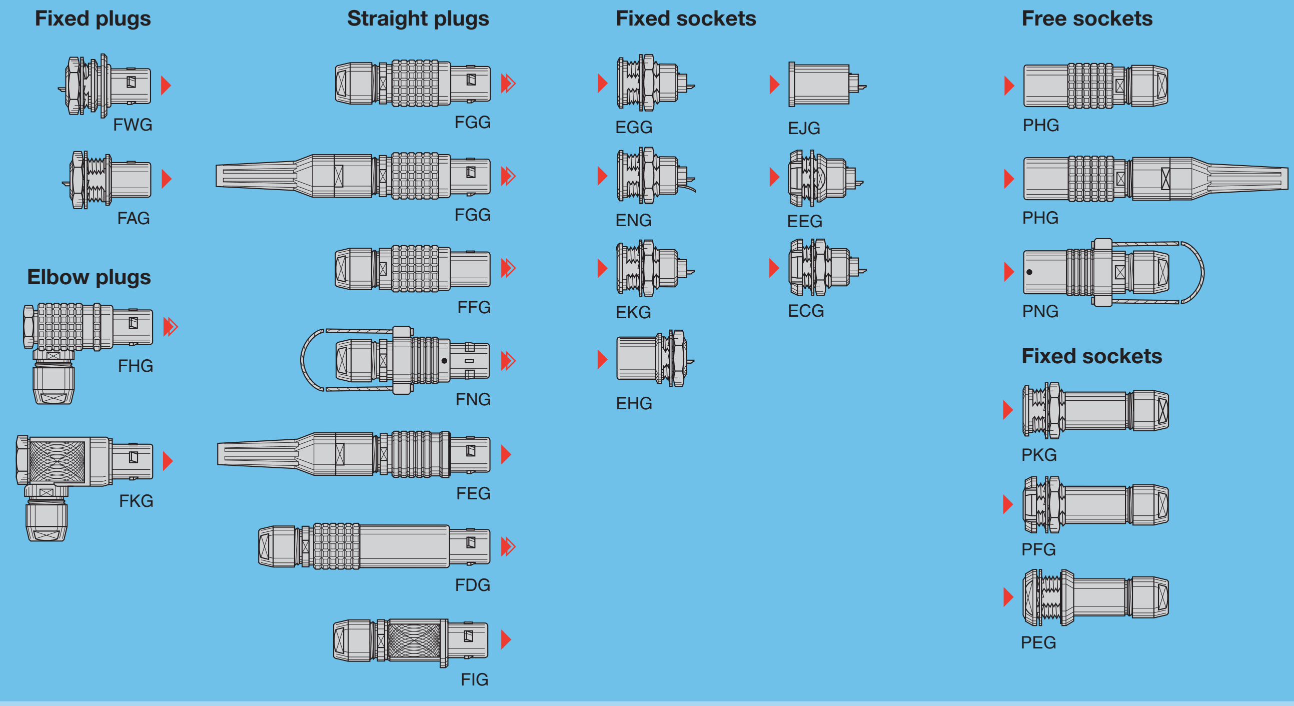
Notes:
standards for surface treatment are as follows:
– chrome-plated: FS QQ-C-320B
– nickel-plated: FS QQ-N-290A, or MIL-C-26074C
– gold-plated: ISO 4523
– black chrome: MIL-C-14538C with a minimum of 10 µm of lacquer protection

1) for FFP, PCP and ERN models of the 0S to 3S series
2) for FFP, PCP and ERN models of the 0S to 3S series, FGG and ENG models of the 0B, 1B, 3B and 4B series, FFA and FFC models of the 00 triaxial series
3) for the FGG, FGY and ENY models of the 2B to 4B series
4) for 00 triaxial series (elbow sockets for printed circuits)
5) gold-plating for unipole types
6) used in 00 series free and fixed sockets
7) AISI 416 steel is used with shells made of AISI 303 or 304
8) delivered with free and fixed sockets with aluminium alloy or stainless steel shell
9) FPM/FKM (Viton®) o-ring and gaskets are installed upon special request. However standard for vacuumtight models.

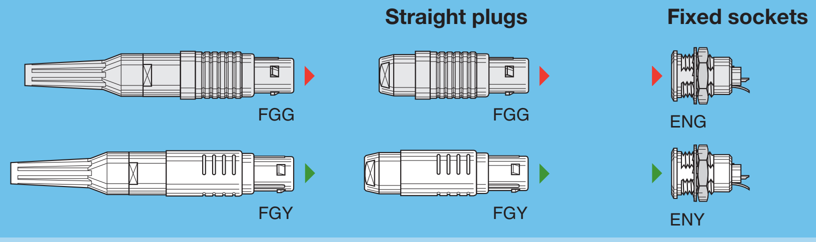
B Series

B series connectors provide the following main features:
- security of the Push-Pull self-latching system
- coaxial, triaxial and mixed contact configurations
- plastic models made of PSU or PPSU
- multiple key options to avoid cross mating of similar connectors («G» key standard).
- up to 10 coaxial contacts
- solder or crimp contacts
- high packing density for space savings
- 360° screening for full EMC shielding

Metal housing models



Plastic housing models



Model Description

ECG Fixed socket with two nuts, key (G) or keys (A…L and R) (back panel mounting)

EEG Fixed socket, nut fixing, key (G) or keys (A…L and R) (back panel mounting)

EGG Fixed socket, nut fixing, key (G) or keys (A…L and R)

EHG Fixed socket, nut fixing, key (G) or keys (A…L and R), and protruding shell

EJG Fixed socket, press or adhesive fit, key (G) or keys (A…L)

EKG Fixed socket, nut fixing, key (G) or keys (A…L and R), special alignment mark on the front

ENG Fixed socket with earthing tag, nut fixing, key (G) or keys (A…L)

ENG Fixed socket with earthing tag, nut fixing, key (G or J), PEEK outer shell

ENY Fixed socket with earthing tag, nut fixing, keys (Y), PSU or PPSU outer shell

FAG Fixed plug, non-latching, nut fixing, key (G) or keys (A…L and R)

FDG Straight plug, long version, key (G) or keys (A…L), cable collet

FEG Straight plug, key (G) or keys (A…L), cable collet, front seal and nut for fitting a bend relief (IP 54 protection index when mated)

FFG Straight plug, non-latching, key (G) or keys (A…L), cable collet

FGG Straight plug, key (G) or keys (A…L and R), cable collet

FGG Straight plug, key (G) or keys (A…L), cable collet and nut for fitting a bend relief

FGG Straight plug, key (G or J), cable collet, PEEK outer shell

FGG Straight plug, key (G or J), cable collet, PEEK outer shell, nut for fitting a bend relief

FGY Straight plug, keys (Y), cable collet and PSU or PPSU outer shell

FGY Straight plug, keys (Y), cable collet and PSU or PPSU outer shell and nut for fitting a bend relief

FHG Elbow (90°) plug, key (G) or keys (A…L and R), cable collet

FIG Straight plug for remote handling, key (G) or keys (A…L and R), special alignment mark, knurled handling surface, cable collet

FKG Elbow (90°) plug for remote handling, key (G) or keys (A…L), special alignment mark, knurled handling surface, cable collet

FNG Straight plug, key (G) or keys (A…L and R), cable collet and lanyard release

FWG Fixed plug, nut fixing, key (G) or keys (A…L)

PEG Fixed socket, nut fixing, key (G) or keys (A…L), cable collet (back panel mounting)

PFG Fixed socket, with two nuts, key (G) or keys (A…L and R), cable collet (back panel mounting)

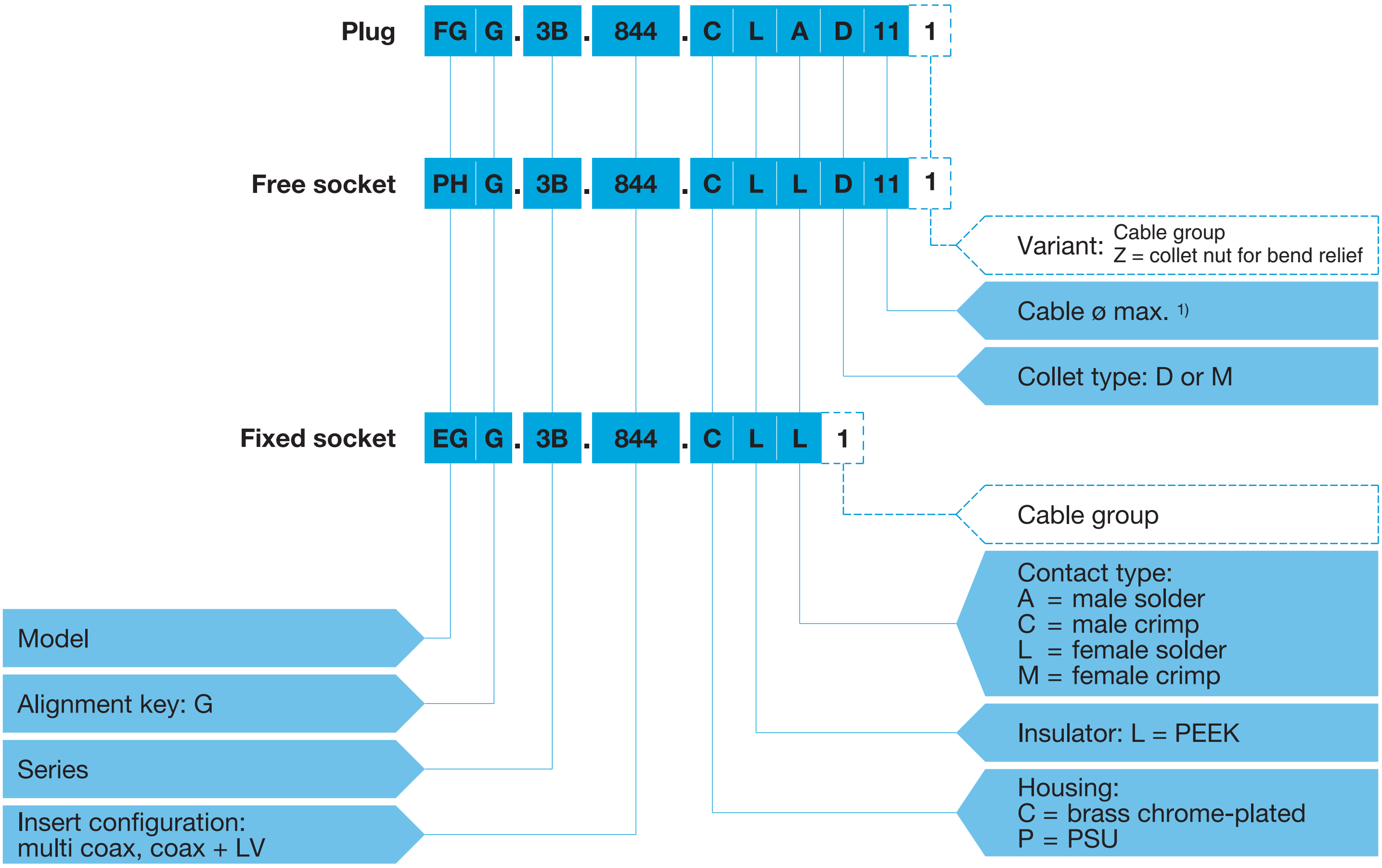
PHG Free socket, key (G) or keys (A…L and R), cable collet

PHG Free socket, key (G) or keys (A…L), cable collet and nut for fitting a bend relief

PKG Fixed socket, nut fixing, key (G) or keys (A…L and R), cable collet

PNG Free socket, nut fixing, key (G) or keys (A…L and R), cable collet with lanyard release

Part Numbering System



Part Number Example

Straight plug with cable collet:
FGG.3B.844.CLAD111 = straight plug with key (G) and cable collet, 3B series, mixed coax & low voltage type (1 coax and 4 low voltage contacts), outer shell in chrome-plated brass, PEEK insulator, male solder contacts, D type collet for up to 11 mm diameter cable. Cable group 1.

Free socket:
PHG.3B.844.CLLD111 = free socket with key (G) and cable collet, 3B series, mixed coax & low voltage type (1 coax and 4 low voltage contacts), outer shell in chrome-plated brass, PEEK insulator, female solder contacts, D type collet for up to 11 mm diameter cable. Cable group 1.

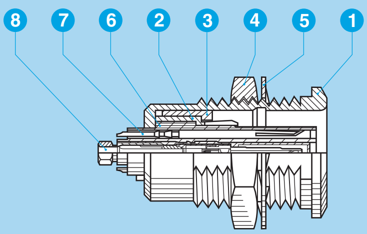
Fixed socket:
EGG.3B.844.CLL1= fixed socket, nut fixing, with key (G), 3B series, mixed coax & low voltage type (1 coax and 4 low voltage contacts), outer shell in chrome plated brass, PEEK insulator, female solder contacts. Cable group 1.

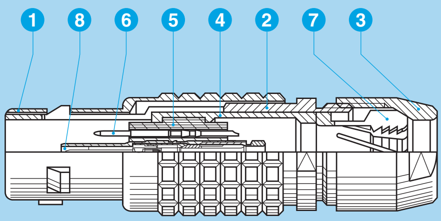
Note: 1) see unipole-multipole catalogue (p. 52).

Part Section Showing Internal Components (mixed coax + LV)

Fixed socket

1. outer shell
2. earthing crown
3. retaining ring
4. hexagonal nut
5. locking washer
6. insulator
7. female contact
8. female coaxial contact





Straight plug

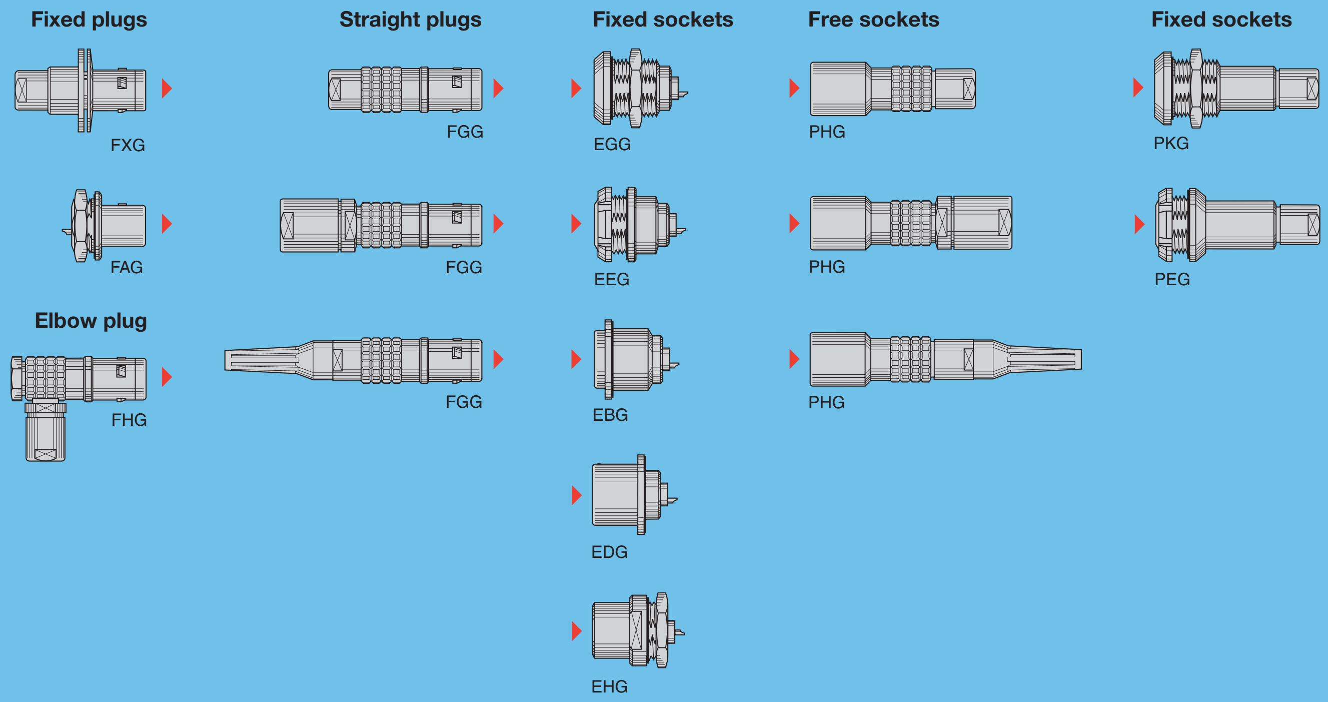
1. outer shell
2. latch sleeve
3. collet nut
4. split insert carrier
5. insulator
6. male contact
7. collet
8. male coaxial contact

K Series

K series connectors have been specifically designed for outdoor applications.
They include an inner sleeve and two seals to prevent penetration of solids or liquids into the housing formed by the plug, free socket or fixed socket. All models of this series are watertight when mated to give a protection index of IP68 as per IEC 60529 standard (in mated condition) when correctly assembled to an appropriate cable (IP66 otherwise).
K series connectors have the same insulators as the B series and have the following main features:

- security of the Push-Pull latching system
- coaxial, triaxial and mixed contact configurations
- solder or crimp contacts
- multiple key options to avoid cross mating of similar connectors («G» key standard)
- watertight connection (IP 68/IP 66)
- up to 10 coaxial contacts
- 360° screening for full EMC shielding
- high packing density for space savings
- rugged housing for extreme working conditions.

Models



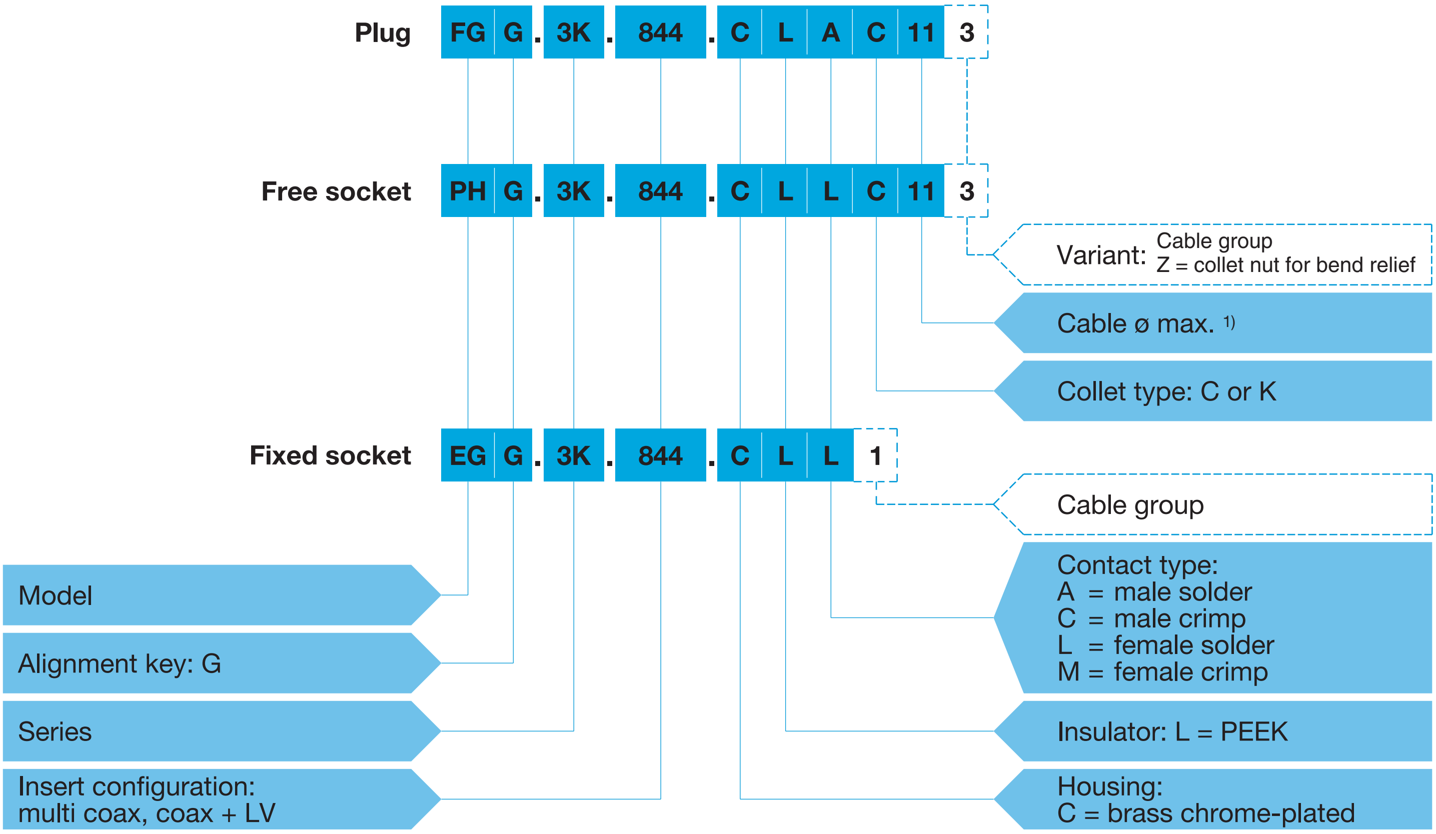
Model Description

EBG Fixed socket with square flange, key (G) or keys (A to F, L and R) and screw fixing
EDG Fixed socket with square flange, key (G) or keys (A to F, L and R), protruding shell and earthing tag, screw fixing
EEG Fixed socket, nut fixing, key (G) or keys (A to F, L and R) (back panel mounting)
EGG Fixed socket, nut fixing, key (G) or keys (A to F, L and R)
EHG Fixed socket, nut fixing, key (G) or keys (A to F and L), protruding shell
FAG Fixed plug, nut fixing, non-latching, key (G) or keys (A to F, L and R)

FGG Straight plug, key (G) or keys (A to F, L and R), cable collet
FGG Straight plug, key (G) or keys (A to F, L and R), cable collet and oversize cable collet
FGG Straight plug, key (G) or keys (A to F, L and R), cable collet and nut for fitting a bend relief
FHG Elbow (90°) plug, key (G) or keys (A to F, L and R), cable collet
FXG Fixed plug with round flange, key (G) or keys (A to F, L and R) and screw fixing
PEG Fixed socket, nut fixing, key (G) or keys (A to F, L and R), cable collet (back panel mounting)

PHG Free socket, key (G) or keys (A to F, L and R), cable collet
PHG Free socket, key (G) or keys (A to F, L and R), cable collet and oversize cable collet
PHG Free socket, key (G) or keys (A to F, L and R), cable collet and nut for fitting a bend relief
PKG Fixed socket, nut fixing, key (G) or keys (A to F, L and R), cable collet

Part Numbering System



Part Number Example

Straight plug with cable collet:
FGG.3K.844.CLAC113 = straight plug with key (G) and cable collet, 3K series, mixed coax & low voltage type (1 coax and 4 low voltage contacts), outer shell in chrome-plated brass, PEEK insulator, male solder contacts, C type collet for 10.5 mm diameter cable. Cable group 3.

Free socket:
PHG.3K.844.CLLC113 = free socket with key (G) and cable collet, 3K series, mixed coax & low voltage type (1 coax and 4 low voltage contacts), outer shell in chrome-plated brass, PEEK insulator, female solder contacts, C type collet for 10.5 mm diameter cable. Cable group 3.

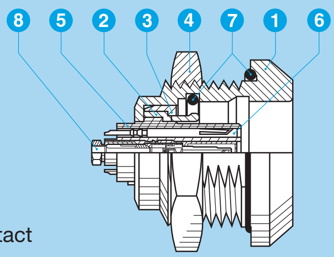
Fixed socket:
EGG.3K.844.CLL1 = fixed socket, nut fixing, with key (G), 3K series, mixed coax & low voltage type (1 coax and 4 low voltage contacts), outer shell in chrome-plated brass, PEEK insulator, female solder contacts. Cable group 1.

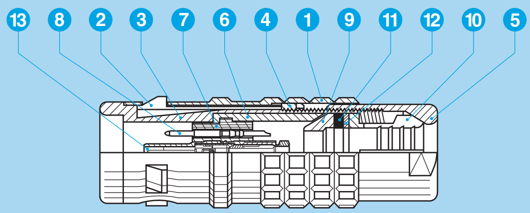
Note: 1) see unipole-multipole catalogue (p. 53).

Part Section Showing Internal Components (mixed coax + LV)

Fixed socket

1. outer shell
2. earthing crown
3. retaining ring
4. hexagonal nut
5. insulator
6. female contact
7. o-ring
8. female coaxial contact



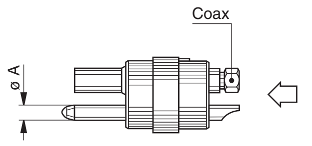


Straight plug

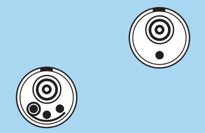
1. outer shell
2. latch sleeve
3. inner shell
4. retaining ring
5. collet nut
6. split insert carrier
7. insulator
8. male contact
9. earthing cone
10. collet
11. gasket
12. washer
13. male coaxial contact

Insert configuration (B and K series)

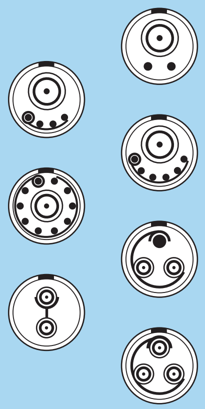
Mixed: multi coax, coax + LV



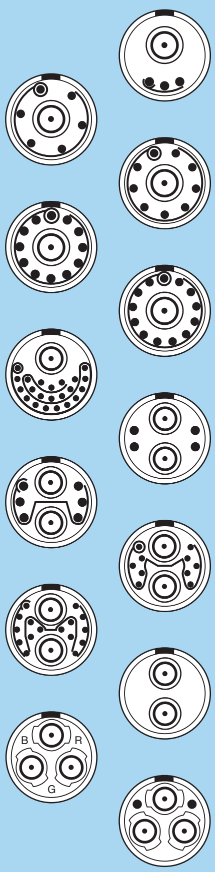
1B / 1K:



2B / 2K:



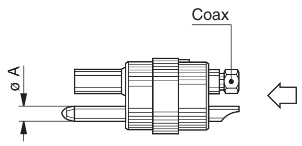
3B / 3K:



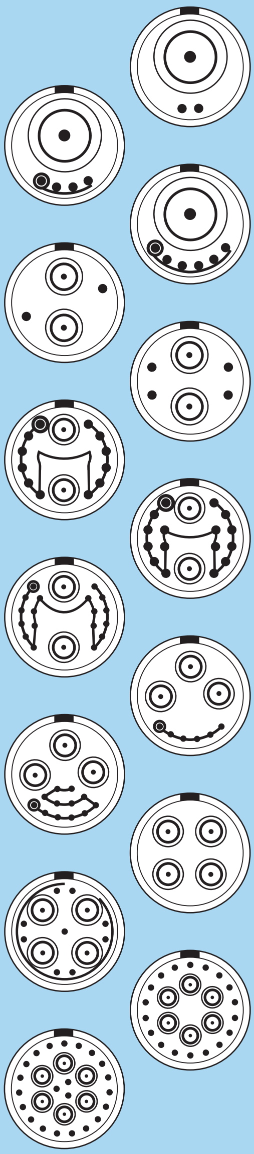
Series	Reference	Coax: Number of contacts	Coax: Impedance (Ω)	Coax: Type (see page 10)	Coax: Cable group	LV: Number of contacts	LV: ø A (mm)	LV: Contacts type – Solder	LV: Contacts type – Crimp	LV: Test voltage (kV rms)	LV: Test voltage (kV dc)	LV: Rated current (A)
1B 1K	801	1	50	F	2	1	0.9	●	●	0.85	1.20	10
	803	1	50	F	2	3	0.9	●	●	0.75	1.05	10
2B 2K	802	1	50	A1	1-2-3	2	0.9	●	●	0.85	1.20	10
	804	1	50	A1	1-2-3	4	0.7	●	●	0.75	1.05	7
	806	1	50	A1	1-2-3	6	0.7	●	●	0.75	1.05	7
	810	1	50	C	1-2-3	10	0.7	●	●	0.95	1.35	7
	841	2	50	E	2	1	1.6	●	●	1.90	2.70	17
	232	2	50	G	–	–	–	–	–	–	–	–
	243	3	50	E	2	–	–	–	–	–	–	–
3B 3K	803	1	50	A0	6	3	0.9	●	–	1.10	1.55	8
	806	1	50	A1	1-2-3	6	0.7	●	●	1.00	1.50	7
	809	1	50	A1	1-2-3	9	0.7	●	●	1.00	1.50	7
	812	1	50	A1	1-2-3	12	0.9	●	●	0.90	1.30	9
	813	1	50	A1	1-2-3	13	0.7	●	●	0.90	1.30	7
	822	1	50	C	1-2-3	22	0.7	●	●	0.70	1.00	5
	844	2	50	C	1-2-3	4	0.9	●	●	0.90	1.30	10
	846	2	50	C	1-2-3	6	0.9	●	●	0.90	1.30	10
	850	2	50	C	1-2-3	10	0.7	●	●	0.75	1.05	8
	856	2	50	C	1-2-3	16	0.7	●	●	0.70	1.00	7
	242	2	50	C	1-2-3	–	–	–	–	–	–	–
	243	3	50	C	1-2-3	–	–	–	–	–	–	–
	862	3	50	C	1-2-3	2	0.9	●	●	1.10	1.60	9

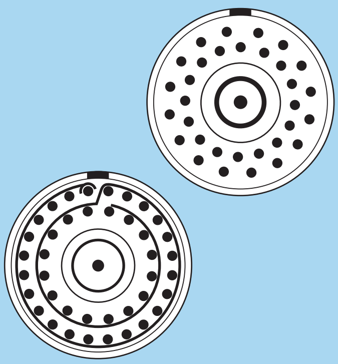
● First choice alternative
○ Special order alternative

Mixed: multi coax, coax + LV



Series	Reference	Coax				Low voltage (LV)						
		Number of contacts	Impedance (Ω)	Type (see page 10)	Cable group	Number of contacts	ø A (mm)	Contacts type: Solder	Contacts type: Crimp	Test voltage (kV rms)	Test voltage (kV dc)	Rated current (A)
4B 4K	802 822	1	50 75	A A	5-6 4 to 6	2	0.9	●	●	1.00	1.40	12
	804 824	1	50 75	A A	5-6 4 to 6	4	0.9	●	●	1.00	1.40	10
	806 826	1	50 75	A A	5-6 4 to 6	6	0.9	●	●	1.00	1.40	10
	842	2	50	A1	1-2-3	2	0.9	●	●	1.70	2.40	12
	844	2	50	A1	1-2-3	4	0.9	●	●	1.70	2.40	10
	852	2	50	C	1-2-3	12	0.9	●	●	0.90	1.30	8
	856	2	50	C	1-2-3	16	0.9	●	●	0.90	1.30	8
	858	2	50	C	1-2-3	18	0.7	●	●	0.80	1.10	7
	866	3	50	C	1	6	0.7	●	●	0.80	1.10	7
	885	3	50	C	1-2-3	12	0.7	●	●	0.80	1.10	8
	244	4	50	C	1-2-3	–	–	–	–	–	–	–
	879	4	50	C	1-2-3	9	0.7	●	●	0.90	1.30	8
	890	6	50	E	2	18	0.7	●	○	0.90	1.30	5
	894	6	50	E	2	22	0.7	●	○	0.90	1.30	4
5B 5K	997 1)	1	75	A4	N/A	32	1.3	●	○	1.20	1.70	8
	840	1	50	A	5-6	40	0.9	●	●	1.30	1.80	7

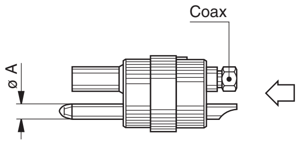




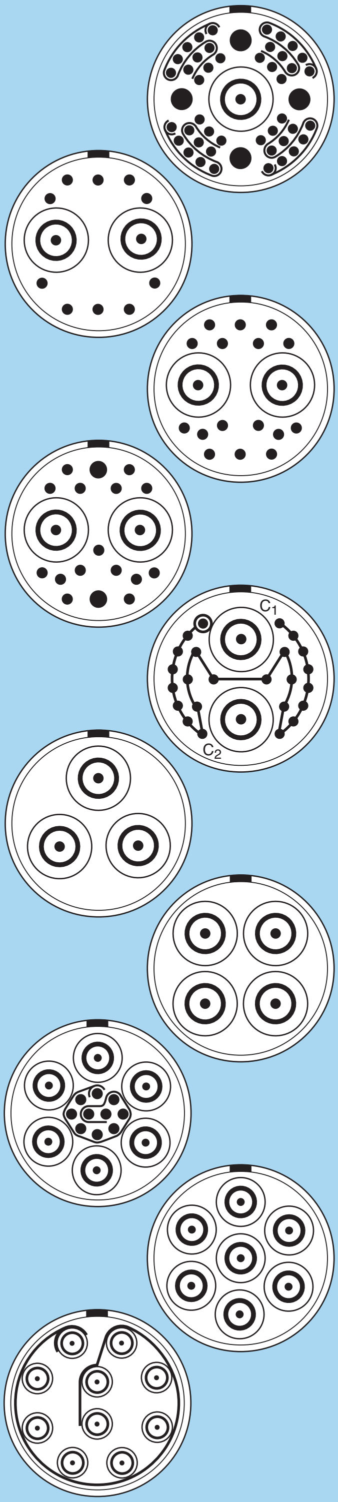
● First choice alternative ○ Special order alternative

Note: 1) only available in 5B series. Solution for triaxial cable fixing.

Mixed: multi coax, coax + LV



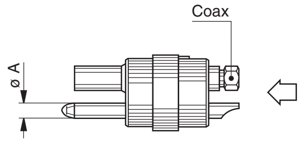
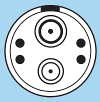
5B
5K



Reference	Coax: Number of contacts	Coax: Impedance (Ω)	Coax: Type (see page 10)	Coax: Cable group	LV: Number of contacts	LV: ø A (mm)	LV: Contacts type – Solder	LV: Contacts type – Crimp	LV: Test voltage (kV rms)	LV: Test voltage (kV dc)	LV: Rated current (A)
868	1	50	B	6	4 44	3.0 0.9	●	○	0.80	1.15	35 6
850 870	2	50 75	B B	6 3-5	10	0.9	○	●	1.40	2.00	8
856 876	2	50 75	B B	6 3-5	16	0.9	○	●	1.40	2.00	7
857 877	2	50 75	B B	6 3-5	2 15	2.0 0.9	○ ○	● ●	1.40 1.40	2.00 2.00	30 7
864	2	75	B0	1-6	24	1.3	●	○	0.90	1.30	8
273	3	75	B1	5	–	–	–	–	–	–	–
274	4	75	B1	5	–	–	–	–	–	–	–
892	6	75	D	5-8-9	10	0.9	●	○	0.70	1.00	7
260	7	75	D	5-8-9	–	–	–	–	–	–	–
240	10	50	C	1-2-3	–	–	–	–	–	–	–

● First choice alternative ○ Special order alternative

Mixed: coax + LV + HV, coax + LV + Fluidic, coax + LV + Fibre optic

		Reference	Coax					Low volt. (LV)		High volt. (HV)		Fibre optic (FO)		Fluidic (FL)	
			Number of contacts	Impedance (Ω)	Rated current (A)	Type (see page 10)	Cable group	Number of contacts	ø A (mm)	Number of contacts	ø A (mm)	Number of contacts	Type	Number of contacts	Inner tube ø (mm)
2B 2K		932	1	50	2.0	C	1	2 [1]	0.7	1 [2]	0.7	–	–	–	–
3B 3K		934	1	50	2.0	C	1	4	0.9	1	0.9	–	–	–	–
		970	1	50	2.0	C	1	10	0.7	–	–	–	–	1	1.3
		986	1	50	2.0	C	1	16	0.7	–	–	1	F2	–	–

Note: [1] Test voltage LV contact-shell 1.9 (kV rms). [2] Test voltage HV contact-shell 7.5 (kV rms). Total rated current for 2B.932 configuration 6 (A).

Coaxial contacts for B and K series

Type	Impedance (Ω)	ø A (mm)	Cond. fixing	Screen fixing	Cable group	Cond. ø maxi (Mini / Maxi)	Dielectric ø maxi	Sheath ø Mini	Sheath ø Maxi	VSWR (f=GHz)	Test voltage (kV rms)	Rated current (A)
F [1]	50	0.5	solder	crimp	2	0.35	1.05	–	2.10	1.05 +1.83f	0.8	2
A1	50	0.7	solder	collet	1 2 3	0.60 0.60 0.60	1.90 1.90 1.90	2.5 1.7 2.2	3.00 2.10 2.60	1.01 +0.127f	0.9	5
C [1]	50	0.6	crimp	crimp	1 2 3	0.50 0.58 0.28 0.35 0.28 0.35	1.65 1.05 1.65	–	3.00 2.35 3.00	1.04 +0.1f	1.6	2
E [1]	50	0.5	solder	crimp	2	0.35	0.95	–	2.00	1.02 +0.93f	0.8	2
A	50	1.6	solder	collet	5 6	1.35 1.35	3.95 3.95	4.3 5.3	5.10 6.10	1.01 +0.146f	1.8	12
A	75	1.3	solder	collet	4 5 6	1.05 1.05 1.05	3.95 3.95 3.95	3.8 4.3 5.3	4.60 5.10 6.10	1.01 +0.19f	2.4	7
A4	75	1.3	solder	collet	none	1.05	3.95	6.7	7.60	1.01 +0.19f	2.4	7
B [1]	50	0.9	solder	crimp	6	1.05	3.75	–	6.25	1.06 +0.156f	0.8	11
B [1]	75	0.6	solder	crimp	3 5	0.80 0.80	2.45 3.75	–	6.25	1.00 +0.22f	2.1	6
B0	75	0.6	solder	solder	1 6	0.75 0.75	2.95 3.75	–	4.25	1.00 +0.22f	2.1	6
B1 [1]	75	0.6	crimp	crimp	5	0.55 0.80	3.75	–	6.25	1.00 +0.22f	2.1	6
D [1]	75	0.5	solder	crimp	5 8 9	0.75 0.75 0.75	3.75 2.45 3.00	–	5.40 3.90 4.90	1.00 +0.38f	1.0	5
G	50	0.5	solder	crimp	1	0.35	1.65	–	3.00	1.01 +0.73f	0.4	2
A0	50	1.3	solder	collet	6	0.95	–	3.3	4.10	1.02 +0.3f [2]	3.0	12

Note:
[1] These contacts require specific tools for assembly on the cable, see page 11.
[2] Frequency range with SWR ≤ 1.2 = 0 - 1.5 GHz.

Recommended coaxial cables for mixed coax, multi coax for B and K Series

LEMO cable Part Number	Type	LEMO cable group	Impedance (Ω)	Conductor ø (mm)	Dielectric ø (mm)	Screen ø (mm)	Sheath ø (mm)
	RG 6 A/U	7	75 ± 3	0.73	4.70	6.20	8.45
311 100 LEDE	RG 11 A/U	9	75 ± 2	1.17	7.25	8.15	10.10
CCX.50.RG5.8CU50N	RG 58 C/U	6	50 ± 2	0.90	2.95	3.60	5.00
CCX.50.RG5.9BU62N	RG 59 B/U	5	75 ± 3	0.60	3.70	4.50	6.20
CCX.50.RG1.74AU27N	RG 174 A/U	1	50 ± 2	0.48	1.50	2.00	2.80
CCX.50.RG1.78BU18M	RG 178 B/U	2	50 ± 2	0.30	0.84	1.30	1.80
CCX.75.RG1.79BU26M	RG 179 B/U	3	75 ± 3	0.30	1.50	2.00	2.50
	RG 180 B/U	4	95 ± 5 1)	0.30	2.60	3.10	3.60
CCX.75.RG1.87AU26B	RG 187 A/U	2	75 ± 3	0.30	1.50	2.00	2.60
CCX.50.RG1.88AU26B	RG 188 A/U	1	50 ± 2	0.54	1.50	2.00	2.60
CCX.50.RG1.96AU20B	RG 196 A/U	1	50 ± 2	0.30	0.84	1.30	1.95
CCX.50.RG3.16U26M	RG 316 /U	1	50 ± 2	0.60	1.60	2.10	2.80

Note: 1) when no defined impedance is required.
The cable group number corresponding to the chosen cable must be written in the variant position, see pages 3 and 5.

Tooling for coaxial contacts of B and K series

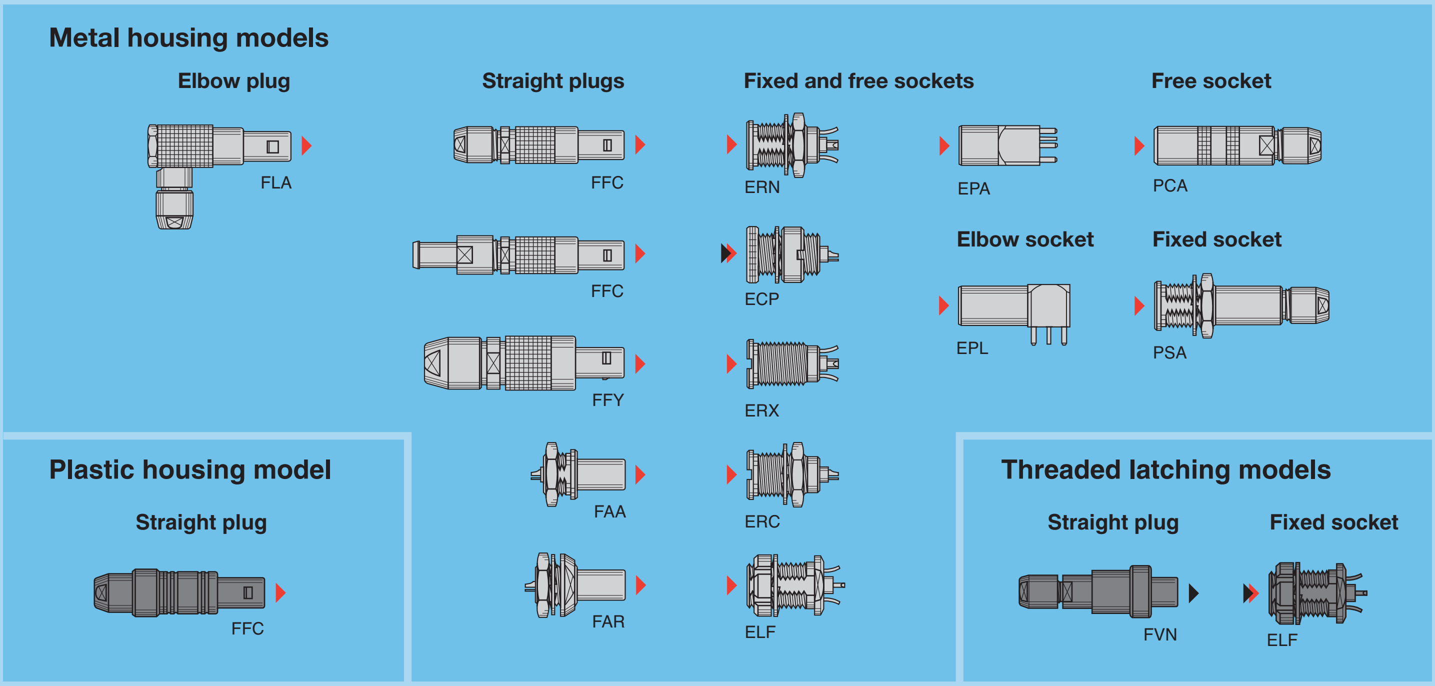
Coaxial contact type	Imp. Ω	Cable group	Reference		
			Crimping tool with die	Spanner for tightening the contact	Extractor
F	50	2	DPE.99.025.45K	DCC.91.019.1LA	–
C 1)	50	1-3	DPE.99.103.8K	–	DCC.91.384.5LA
		2	DPE.99.103.1K	–	DCC.91.384.5LA
E	50	2	DPE.99.002.5K	DCC.91.050.2LA	–
B	50	6	DPE.99.176.2K	–	DCC.91.804.5LA
	75	3	DPE.99.125.2K	–	DCC.91.804.5LA
	75	5	DPE.99.127.0K	–	DCC.91.804.5LA
B1	75	5	DPE.99.127.0K	–	DCC.91.808.0LC
D	75	5	DPE.99.006.2K	DCB.91.685.8TN	–
		8	DPE.99.005.2K	DCB.91.685.8TN	–
		9	DPE.99.005.5K	DCB.91.685.8TN	–

Note: 1) for the 3B.243/3K.243 and 3B.862/3K.862 the extractor is part number DCC.91.393.4LT.

00.650 Series

The 00 Series are available in triax configuration, allowing a very compact solution for triaxial cables.
These connectors are designed for small diameter ranging from 1.1 to 3.5 mm.
Either twinax (2 shielded connectors) or triax (1 conductor and 2 concentric separate screens) can be used with the 00 Series.
The 00 Series with a 650 configuration insert are mostly used in audio-video applications where a large density of connection is required.
LEMO 00 Series connectors offer customers many benefits including:

- self-latching push-pull system
- aesthetically pleasing appearance
- small size
- high packing density
- rugged construction.
- ease of use
- low weight
- reliable performances
- wide choice to suit application



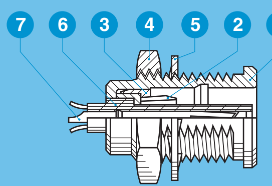
Model Description

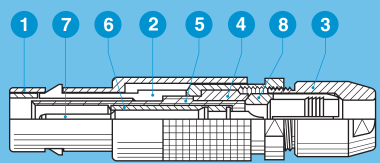
ECP Fixed socket with 2 round nuts (back panel mounting)
ELF Fixed socket, nut fixing, threaded shell with tag (back panel mounting)
ELF Fixed socket, nut fixing, threaded shell with tag, black chromium-plated outer shell (back panel mounting)
EPA Straight socket for printed circuit board
EPL Elbow plug (90°) for printed circuit board
ERC Fixed socket, with thread, with slots in flange
ERN Fixed socket with nut fixing and tags
ERX Fixed socket with nut fixing, slots on flange and tags
FAA Straight plug non latching with nut
FAR Straight plug non latching with 2 nuts (back panel mounting)
FFC Straight plug with flats on latch sleeve and cable collet
FFC Straight plug with flats on latch sleeve and cable collet and nut for fitting a bend relief
FFC Straight plug with flats on latch sleeve and cable collet, black POM (Delrin® outershell)
FFY Straight plug, large shell with cable collet
FLA Elbow socket (90°) with cable collet
FVN Straight plug with cable collet, black chromium-plated outer shell
PCA Free socket with cable collet
PSA Fixed socket, nut fixing, cable collet

Part Section Showing Internal Components

Fixed socket

1. outer shell
2. earthing crown
3. retaining ring
4. hexagonal nut
5. locking washer
6. insulator
7. female triaxial contact





Straight plug

1. outer shell
2. latch sleeve
3. collet nut
4. earthing sleeve
5. rear insulator
6. insulator
7. male triaxial contact
8. collet

Part Numbering System

Plug FFC . 00 . 650 . C L A C 27

Free socket PCA . 00 . 650 . C L L C 27 Z

- Variant
- Cable ø max.: from 1.1 to 3.5 mm
- Collet type: C = with cable collet clamping
- Contact type: A = male solder, L = female solder

Fixed socket ERN . 00 . 650 . C L L

- Model
- Series: 00
- Insert configuration: 650 = triaxial (50 Ω)
- Housing:
  - N = brass nickel-plated 3)
  - C = brass chrome-plated 3) 1)
  - K = brass black chrome 1)
  - B = black POM 2)
  - G = PEEK (natural)
- Variant
- Contact type:
  - A = male solder
  - D = male print
  - L = female solder
  - N = female print
- Insulator: L = PEEK

Part Number Example

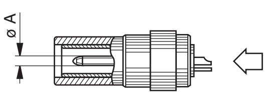
Straight plug with cable collet:
FFC.00.650.CLAC27 = straight plug with flats on latch sleeve and cable collet, 00 Series, triaxial (50 Ω), outer shell in chrome-plated brass, PEEK insulator, C type collet for an up to 2.6 mm diameter cable.

Free socket:
PCA.00.650.CLLC27Z = free socket with cable collet, 00 Series, triaxial (50 Ω), outer shell in chrome-plated brass, PEEK insulator, C type collet for an up to 2.6 mm diameter cable and nut for fitting a bend relief.

Fixed socket:
ERN.00.650.CLL = fixed socket with nut fixing and tags, 00 Series, triaxial (50 Ω), outer shell in chrome-plated brass, PEEK insulator.

Note: 1) treatment not available for the printed circuit models. 2) available for the FFC model only. 3) standard.

Insert configuration



	Reference	Series: Standard	Series: Watertight	Impedance (Ω)	ø A (mm)	Cable group	Cond. ø max	Dielectric ø maxi	Sheath ø maxi	VSWR (f=GHz)	Test voltage (kV rms)	Rated current (A)
	650	00	–	50	0.5	1)	0.55	2.9	3.5	1.02 +0.9f	0.6	4

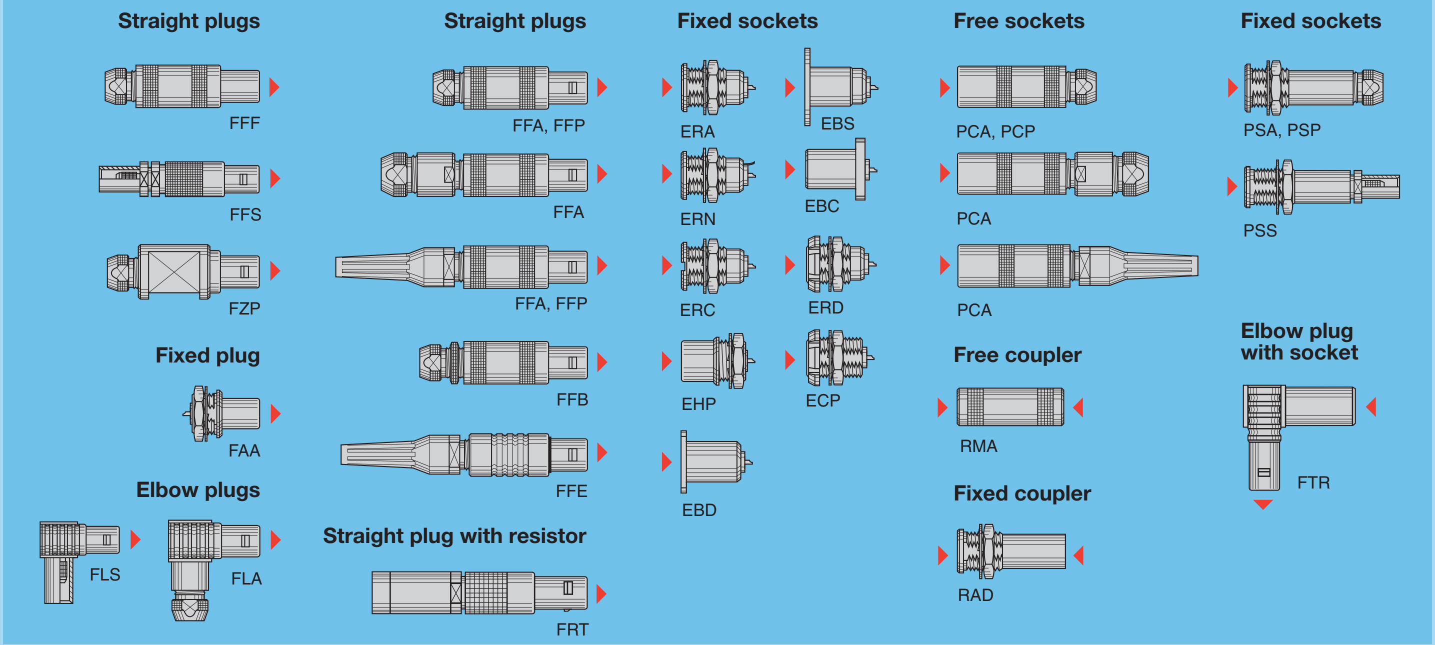
Note: 1) 00.650 is designed for use with 2 conductors screened cable (twinax).

S Series

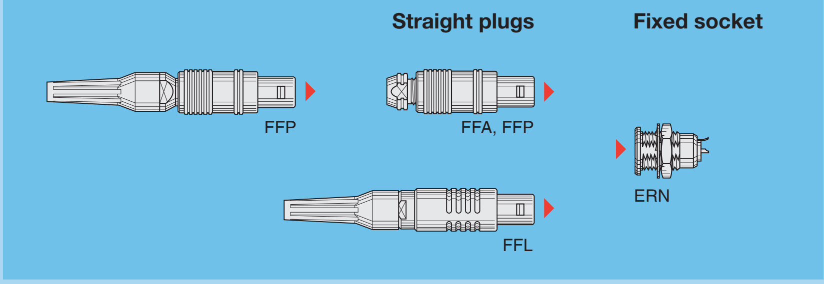
S series connectors have main features as follows:

- security of the Push-Pull self-latching system
- solder contacts, print contacts only for coaxial and triaxial configurations
- 360° screening for full EMC shielding.
- coaxial, triaxial and mixed contact configurations
- polarisation by stepped insert (half-moon)
- up to 8 coaxial contacts

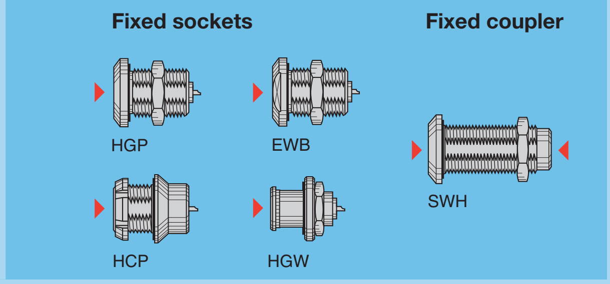
Metal housing models



Plastic housing models



Watertight or vacuumtight models



Model Description

EBC Fixed socket with square flange, protruding shell and screw fixing
EBD Fixed socket with square flange and screw fixing
EBS Fixed socket with round flange and screw fixing
ECP Fixed socket with two nuts, long threaded shell (back panel mounting)
EHP Fixed socket, nut fixing, protruding shell
ERA Fixed socket, nut fixing
ERC Fixed socket, nut fixing with slot in the flange
ERD Fixed socket with two nuts (back panel mounting)
ERN Fixed socket, nut fixing, with earthing tag
ERN Fixed socket, nut fixing, with earthing tag, PEEK or POM outer shell
EWB Fixed socket, nut fixing, with two flats on the flange, watertight or vacuumtight
FAA Fixed plug non-latching, nut fixing
FFA Straight plug, cable collet
FFA Straight plug with oversize cable collet
FFA Straight plug, cable collet and nut for fitting a bend relief
FFA Straight plug, cable collet, PEEK or POM outer shell
FFB Straight plug, cable collet and safety locking ring
FFE Straight plug, cable collet, front seal and nut for fitting a bend relief (protected to IP54 when mated)
FFF Straight plug, non-latching, cable collet
FFP Straight plug, cable collet and inner anti-rotating device
FFP Straight plug, cable collet, PEEK or POM outer shell and inner anti-rotating device
FFP Straight plug, cable collet, PEEK or POM outer shell, inner anti-rotating device and nut for fitting a bend relief
FFS Straight plug for cable crimping
FLA Elbow (90°) plug, cable collet
FLA Elbow (90°) plug, cable collet and nut for fitting a bend relief
FLS Elbow (90°) plug for cable crimping
FRT Straight plug with resistor
FTR Elbow (90°) plug with socket
FZP Straight plug for remote handling, cable collet and inner anti-rotating device
HCP Fixed socket, nut fixing, watertight or vacuumtight (back panel mounting)
HGP Fixed socket, nut fixing, watertight or vacuumtight
HGW Fixed socket, nut fixing, with back washer, watertight or vacuumtight
PCA Free socket, cable collet
PCA Free socket with oversize cable collet
PCA Free socket, cable collet and nut for fitting a bend relief
PCP Free socket, cable collet and inner anti-rotating device
PSA Fixed socket, nut fixing, cable collet
PSP Fixed socket, nut fixing, cable collet and inner anti-rotating device
PSS Free socket, nut fixing for cable crimping
RAD Fixed coupler, nut fixing
RMA Free coupler
SWH Fixed coupler, nut fixing, watertight or vacuumtight

Part Numbering System

Plug	FFA	1S	250	C	T	A	C	32	
Free socket	PCA	1S	250	C	T	L	C	32	Z
Fixed socket	ERA	1S	250	C	T	L			

- Model
- Series
- Insert configuration: coaxial, triaxial, multi coax, coax + LV
- Housing:
  C = brass chrome-plated
  N = brass nickel-plated
  B = POM (black)
- Insulator:
  L = PEEK
  T = PTFE
- Contact type:
  A = male solder
  C = male crimp
  L = female solder
  M = female crimp
- Collet type: C, K or L
- Cable ø max. 2)
- Variant 1)

Part Number Example

Straight plug with cable collet:
FFA.1S.250.CTAC32 = straight plug with cable collet, 1S series, coaxial (50 Ω), outer shell in chrome-plated brass, PTFE insulator, male solder contact, C type collet for a 3.2 mm diameter cable.

Free socket:
PCA.1S.250.CTLC32Z = free socket with cable collet, 1S series, coaxial (50 Ω), outer shell in chrome-plated brass, PTFE insulator, female solder contact, C type collet for a 3.2 mm diameter cable and nut for fitting a bend relief.

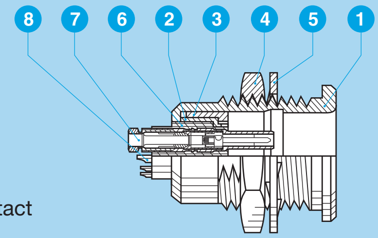
Fixed socket:
ERA.1S.250.CTL = fixed socket, nut fixing, 1S series, coaxial (50 Ω), outer shell in chrome-plated brass, PTFE insulator, female solder contact.

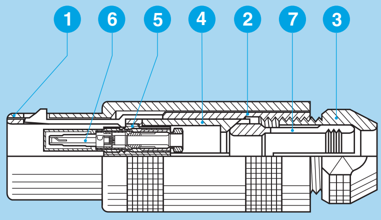
Note: 1) for mixed contacts, add cable group to the part number.
2) see unipole-multipole catalogue (p. 102).

Part Section Showing Internal Components (mixed coax + LV)

Fixed socket

1. outer shell
2. earthing crown
3. retaining ring
4. hexagonal nut
5. locking washer
6. insulator
7. male coaxial contact
8. female contact





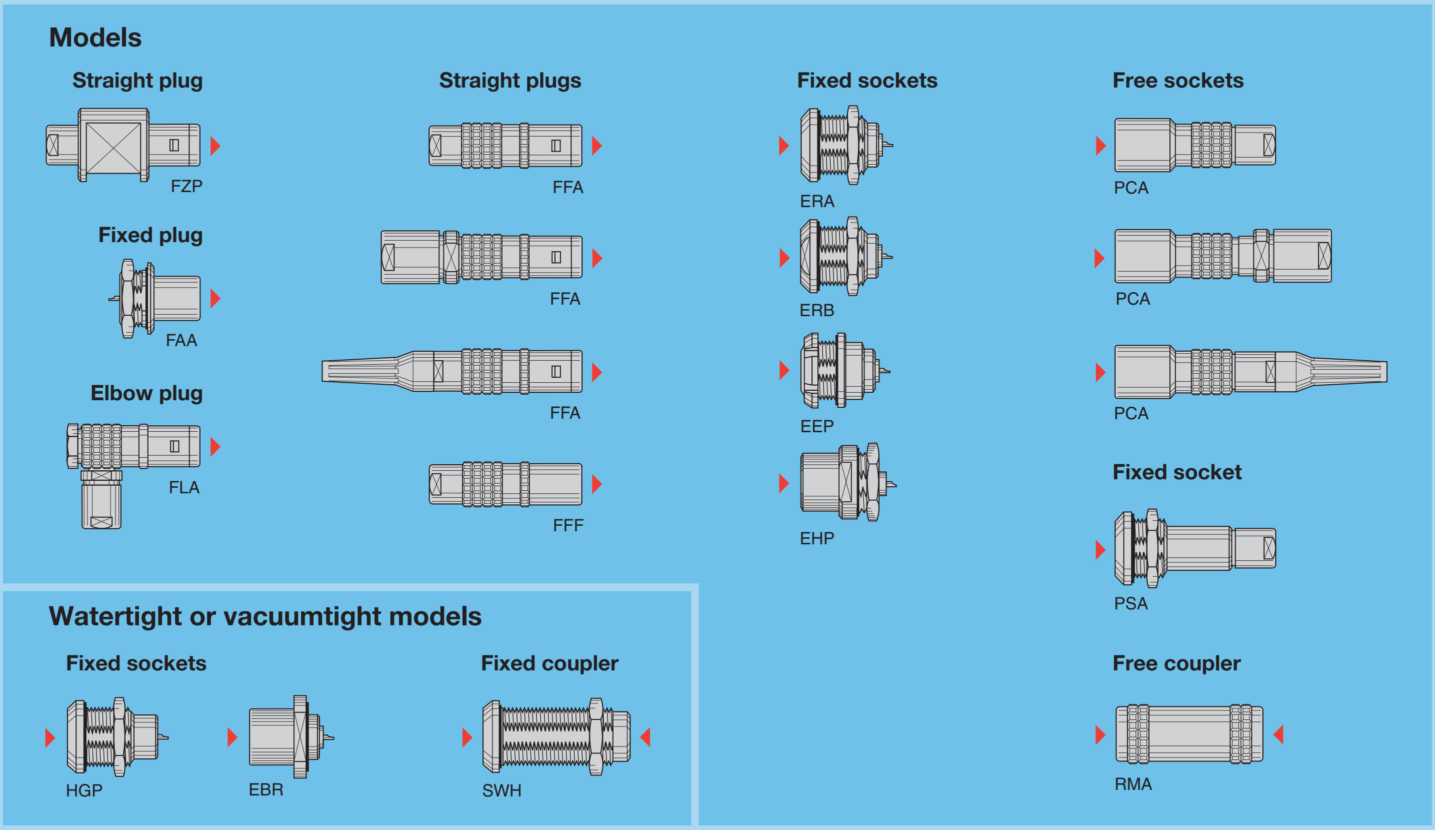
Straight plug

1. outer shell
2. latch sleeve
3. collet nut
4. centre-piece
5. insulator
6. female coaxial contact
7. collet

E Series

E series connectors have been specifically designed for outdoor applications.
They include an inner sleeve and two seals to prevent penetration of solids or liquids into the housing formed by the plug, free socket or fixed socket. All models of these series are watertight when mated and give a protection index of IP 68 as per IEC 60529 standard (in mated condition) when correctly assembled to an appropriate cable (IP 66 otherwise).

- security of the Push-Pull latching system
- watertight connection (IP 68/IP 66)
- solder contacts, print contacts only for coaxial and triaxial configurations
- coaxial, triaxial and mixed contact configurations
- polarization by stepped insert (half-moon)
- 360° screening for full EMC shielding
- rugged housing for extreme working condition.



Model Description

EBR Fixed socket with round flange, watertight, protruding shell and screw fixing
EEP Fixed socket, nut fixing (back panel mounting)
EHP Fixed socket, nut fixing, protruding shell
ERA Fixed socket, nut fixing
ERB Fixed socket, nut fixing with two flats in the flange
FAA Fixed plug non-latching, nut fixing
FFA Straight plug, cable collet
FFA Straight plug with oversize cable collet
FFA Straight plug, cable collet and nut for fitting a bend relief
FFF Straight plug non-latching, cable collet
FLA Elbow (90°) plug, cable collet
FZP Straight plug for remote handling, cable collet and inner anti-rotating device
HGP Fixed socket, nut fixing, watertight or vacuumtight
PCA Free socket, cable collet
PCA Free socket with oversize cable collet
PCA Free socket, cable collet and nut for fitting a bend relief
PSA Fixed socket, nut fixing, cable collet
RMA Free coupler
SWH Fixed coupler, nut fixing, watertight or vacuumtight

Part Numbering System

	Model		Series		Insert configuration		Housing	Insulator	Contact type	Collet type	Cable ø max.	Variant
Plug	FFA	.	1E	.	250	.	C	T	A	C	50	
Free socket	PCA	.	1E	.	250	.	C	T	L	C	50	Z
Fixed socket	ERA	.	1E	.	250	.	C	T	L			

Variant [1)]

Cable ø max. [2)]

Collet type: C or K

Contact type:
A = male solder
L = female solder

Insulator:
L = PEEK
T = PTFE

Housing:
C = brass chrome-plated
K = brass black chrome
T = stainless steel

Model

Series

Insert configuration:
coaxial, triaxial,
multi coax, coax + LV

Part Number Example

Straight plug with cable collet:
FFA.1E.250.CTAC50 = straight plug with cable collet, 1E series, coaxial (50 Ω), outer shell in chrome-plated brass, PTFE insulator, C type collet for an up to 5.0 mm diameter cable.

Free socket:
PCA.1E.250.CTLC50Z = free socket with cable collet, 1E series, coaxial (50 Ω), outer shell in chrome-plated brass, PTFE insulator, C type collet for an up to 5.0 mm diameter cable and collet nut for fitting a bend relief.

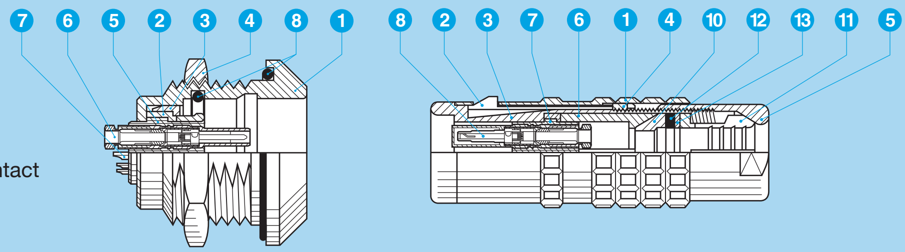
Fixed socket:
ERA.1E.250.CTL = fixed socket, nut fixing, 1E series, coaxial (50 Ω), outer shell in chrome-plated brass, PTFE insulator.

Note: 1) for mixed contacts, add cable group to the part number.
2) see unipole-multipole catalogue (p. 105).

Part Section Showing Internal Components (mixed coax + LV)

Fixed socket

1. outer shell
2. earthing crown
3. retaining ring
4. hexagonal nut
5. insulator
6. male coaxial contact
7. female contact
8. o-ring

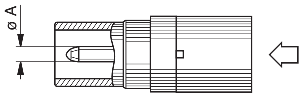


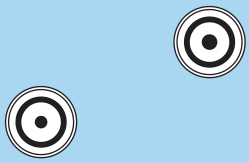
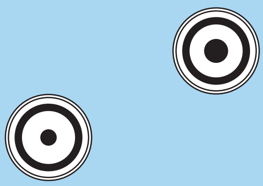
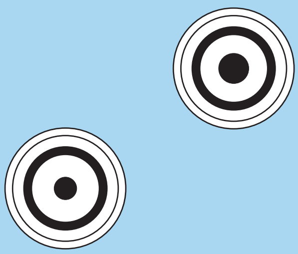
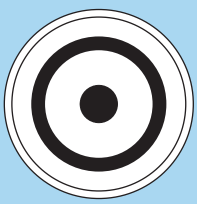
Straight plug

1. outer shell
2. latch sleeve
3. inner shell
4. retaining ring
5. collet nut
6. centre-piece
7. insulator
8. female coaxial contact
9. earthing cone
10. collet
11. gasket
12. washer

Insert configuration (S and E series)

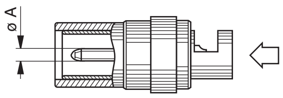
Coaxial



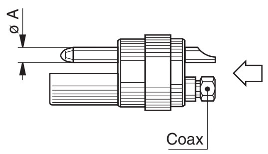
Insert	Drawing	Reference	Series: Standard	Series: Watertight	Impedance (Ω)	ø A (mm)	Cable group	Cond. ø max	Dielectric ø maxi	Sheath ø: Maxi S series	Sheath ø: Maxi E series	VSWR (f=GHz)	Test voltage (kV rms)	Rated current (A)
00		250 [1]	00	–	50	0.7	1 to 9	1.05	3.05	5.5		1.09 +0.11f	2.1	4
0S 0E		250	0S	0E	50	0.9	1-2 3-4	0.95	2.95	6.7	5.0	1.02 +0.25f	3.0	6
1S 1E		250	1S	1E	50	1.6	1-2 3-4	1.35	3.95	8.5	8.5	1.01 +0.23f	3.0	12
		275	1S	1E	75	1.3	5-6-7	1.05	3.95	8.5	8.5	1.02 +0.08f	2.4	10
2S 2E		250	2S	2E	50	2.0	6-7	1.75	5.95	10.5	10.5	1.01 +0.95f	3.0	15
		275	2S	2E	75	1.6	6-7	1.35	5.95	10.5	10.5	1.02 +0.03f	1.5	12
3S 3E		250	3S	3E	50	3.0	8	2.65	8.15	13.0	15.0	1.06 +0.5f	3.0	26
		275	3S	3E	75	2.0	8	1.75	8.15	13.0	15.0	1.04 +0.05f	2.7	15
4S 4E		250	4S	4E	50	4.0	8-9	3.65	10.05	22.0	23.5	1.01 +1.9f	2.1	36
		275	4S	4E	75	3.0	8-9-0	2.65	10.05	22.0	23.5	1.01 +0.12f	1.8	26
5S		250	5S	–	50	5.0	9	5.15	17.45	30.0	30.0	1.02 +2.3f	3.0	45

Note: [1] see NIM-CAMAC catalogue.

Triaxial

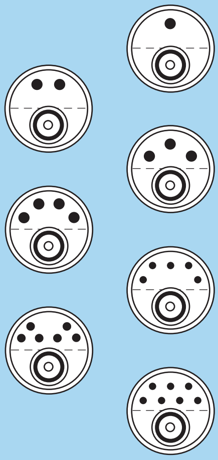
		Reference	Series		Impedance (Ω)	ø A (mm)	Cable group	Cond. ø max	Dielectric ø maxi	Sheath ø		VSWR (f=GHz)	Test voltage (kV rms) (contact/screen)	Rated current (A)
			Standard	Watertight						Maxi S series	Maxi E series			
0S 0E		650	0S	0E	50	0.9	1-2	0.75	2.95	6.7	5.0	1.03 +0.34f	1.0	6
1S 1E		650	1S	1E	50	0.9	1-2-3	0.75	3.95	8.5	8.5	1.01 +0.17f	1.0	6
2S 2E		650	2S	2E	50	1.6	2-3-4	1.35	5.95	10.5	10.5	1.01 +0.3f	1.5	12
		675	2S	2E	75	0.9	4-6	0.75	5.95	10.5	10.5	1.01 +0.07f	1.5	6
3S 3E		650	3S	3E	50	2.0	3-4-5	1.75	8.45	13.0	15.0	1.01 +0.27f	2.4	15
		675	3S	3E	75	0.9	4-5	0.75	8.45	13.0	15.0	1.02 +0.05f	1.8	6
4S 4E		650	4S	4E	50	3.0	4-5	2.65	10.05	22.0	23.5	1.01 +0.38f	2.7	26
		675	4S	4E	75	2.0	4-5-7	2.25	10.05	22.0	23.5	1.01 +0.14f	2.2	15

Mixed: coax + LV, multi coax

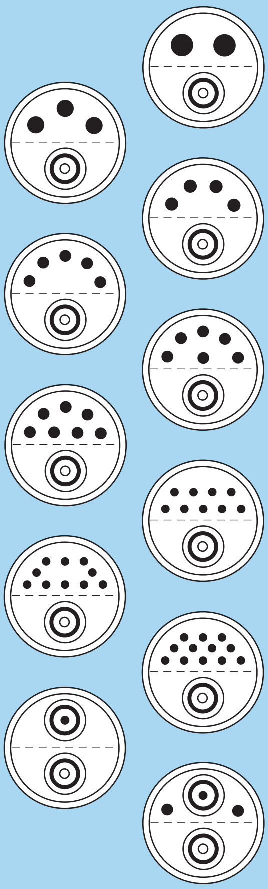


Reference	Series		Coaxial					Low Voltage				
	Standard	Watertight	Number of contacts	Impedance (Ω)	Rated current (A)	Type (see page 27)	Cable group	Number of contacts	ø A (mm)	Test voltage (kV rms)	Test voltage (kV dc)	Rated current (A)
801	3S	3E	1	50	5	A1	1-2-3	1	1.3	2.7	3.9	14
802	3S	3E	1	50	5	A1	1-2-3	2	1.3	1.2	1.8	14
803	3S	3E	1	50	5	A1	1-2-3	3	1.3	2.7	3.9	14
804	3S	3E	1	50	5	A1	1-2-3	4	1.3	1.2	1.8	10
805	3S	3E	1	50	5	A1	1-2-3	5	0.9	1.8	2.4	8
806	3S	3E	1	50	5	A1	1-2-3	6	0.9	0.8	1.2	8
807	3S	3E	1	50	5	A1	1-2-3	7	0.9	0.8	1.2	7
802	4S	4E	1	50	5	A1	1-2-3	2	3.0	2.1	3.0	21
803	4S	4E	1	50	5	A1	1-2-3	3	2.0	2.1	3.0	16
804	4S	4E	1	50	5	A1	1-2-3	4	1.3	2.7	3.9	13
805	4S	4E	1	50	5	A1	1-2-3	5	1.3	2.1	3.0	11
806	4S	4E	1	50	5	A1	1-2-3	6	1.3	2.1	3.0	9
807	4S	4E	1	50	5	A1	1-2-3	7	1.3	2.1	3.0	8
809	4S	4E	1	50	5	A1	1-2-3	9	0.9	2.1	3.0	7
810	4S	4E	1	50	5	A1	1-2-3	10	0.9	2.1	3.0	7
812	4S	4E	1	50	5	A1	1-2-3	12	0.9	2.1	3.0	7
202	4S	4E	2	50	5	A1	1-2-3	–	–	–	–	–
832	4S	4E	2	50	5	A1	1-2-3	2	1.3	2.1	3.0	13

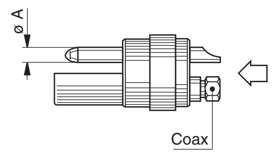
3S 3E



4S 4E

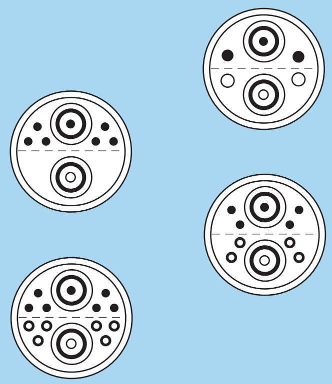


Mixed: coax + LV, multi coax

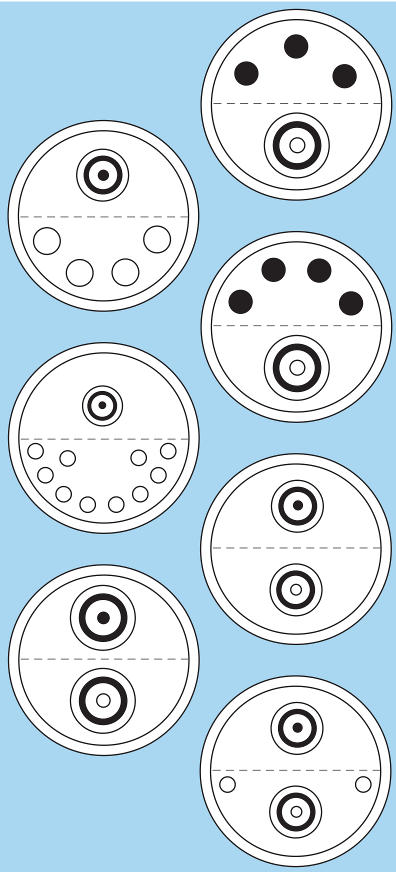


Reference	Series		Coaxial					Low Voltage				
	Standard	Watertight	Number of contacts	Impedance (Ω)	Rated current (A)	Type (see page 27)	Cable group	Number of contacts	ø A (mm)	Test voltage (kV rms)	Test voltage (kV dc)	Rated current (A)
834	4S	4E	2	50	5	A1	1-2-3	4	1.3	2.1	3.0	13
836	4S	4E	2	50	5	A1	1-2-3	6	0.9	1.8	2.4	7
838	4S	4E	2	50	5	A1	1-2-3	8	0.9	1.8	2.4	7
842	4S	4E	2	50	5	A1	1-2-3	12	0.9	1.8	2.4	7
803	–	5E	1	50	12	A	4-6	3	3.0	3.0	4.2	25
804	5S	–	1	50	6	A0	1-3-4	4	3.0	2.1	3.0	22
804	–	5E	1	75	7	A	3-4-5	4	3.0	2.1	3.0	22
810	5S	5E	1	50	5	A1	1-2-3	10	1.6	1.8	2.4	11
232	5S	–	2	50	6	A0	1-3-4	–	–	–	–	–
282 292	5S	5E	2	50 75	12 7	A	4-6 3-4-5	–	–	–	–	–
832	5S	5E	2	50	6	A0	1-3-4	2	2.0	2.1	3.0	18

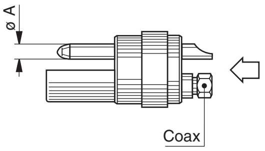
4S
4E



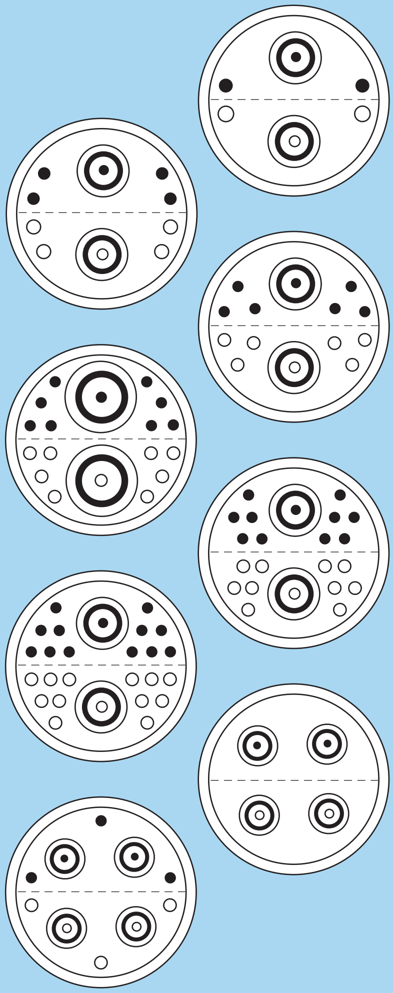
5S
5E



Mixed: coax + LV, multi coax

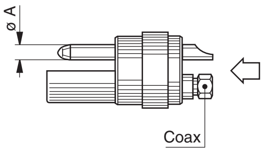


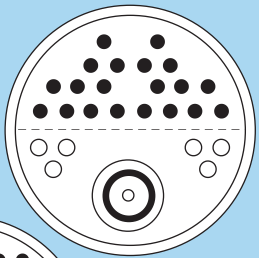
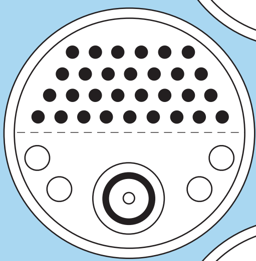
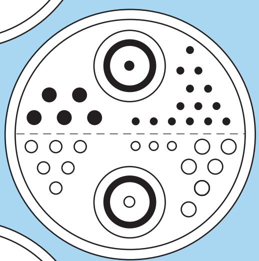
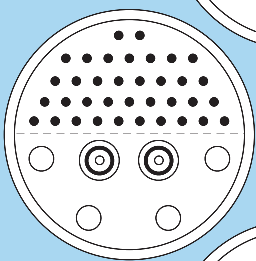
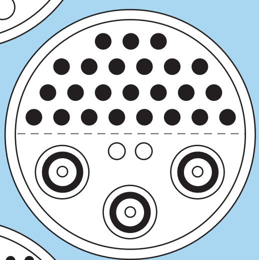
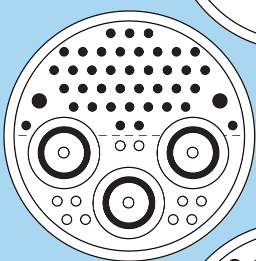
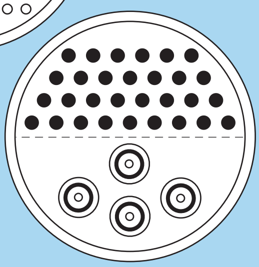
5S
5E



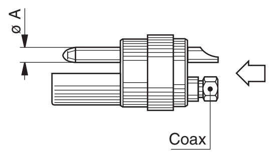
Reference	Series		Coaxial					Low Voltage				
	Standard	Watertight	Number of contacts	Impedance (Ω)	Rated current (A)	Type (see page 27)	Cable group	Number of contacts	ø A (mm)	Test voltage (kV rms)	Test voltage (kV dc)	Rated current (A)
834	5S	5E	2	50	6	A0	1-3-4	4	2.0	2.1	3.0	18
838	5S	–	2	50	6	A0	1-3-4	8	1.6	1.8	2.4	12
842	5S	5E	2	50	6	A0	1-3-4	12	1.3	1.8	2.4	9
846	–	5E	2	75	7	A	3-4-5	16	1.3	0.8	1.2	8
850	5S	–	2	50	6	A0	1-3-4	20	1.3	0.8	1.2	7
854	5S	–	2	50	6	A0	1-3-4	24	1.3	0.8	1.2	6
234	5S	5E	4	50	5	A1	1-2-3	–	–	–	–	–
876	5S	5E	4	50	5	A1	1-2-3	6	1.3	0.8	1.2	6

Mixed: coax + LV, multi coax

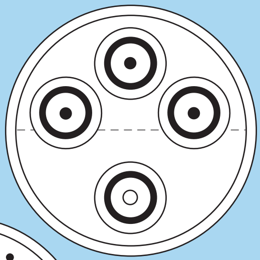
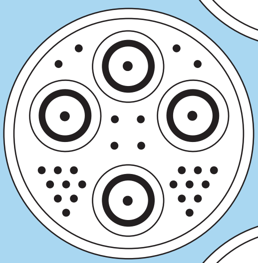
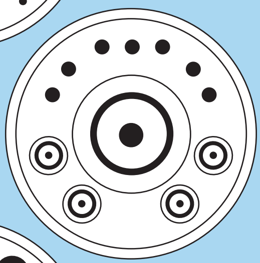
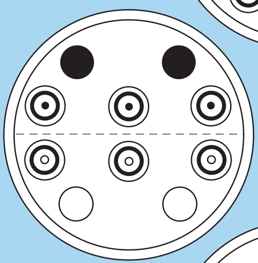
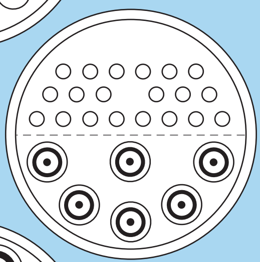
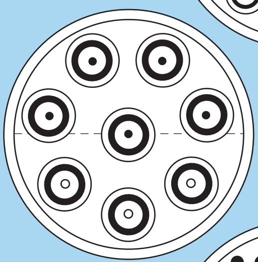
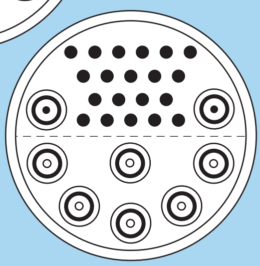


	Reference	Coaxial					Low Voltage				
		Number of contacts	Impedance (Ω)	Rated current (A)	Type (see page 27)	Cable group	Number of contacts	ø A (mm)	Test voltage (kV rms)	Test voltage (kV dc)	Rated current (A)
6S 	826	1	75	7	A	3-4-5	26	2.0	1.5	2.1	7
	830	1	75	7	A	3-4-5	4 30	3.0 1.6	1.5 1.5	2.1 2.1	14 5
	858	2	75	7	A	3-4-5	6 6 5 17	1.3 1.6 2.0 0.9	1.2 1.2 1.2 1.2	1.8 1.8 1.8 1.8	4 5 10 2
	859	2	50	5	A1	1-2-3	36 4	1.3 3.0	1.2 1.2	1.8 1.8	4 14
	866	3	50	6	A0	1-3-4	26	2.0	1.5	2.1	7
	867	3	75	7	A	3-4-5	49 2	0.9 1.6	1.2 1.2	1.8 1.8	2 5
	883	4	50	4	A1	1-2-3	30	1.6	1.5	2.1	5

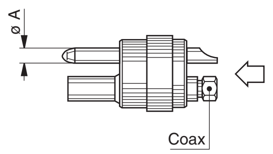
Mixed: coax + LV, multi coax



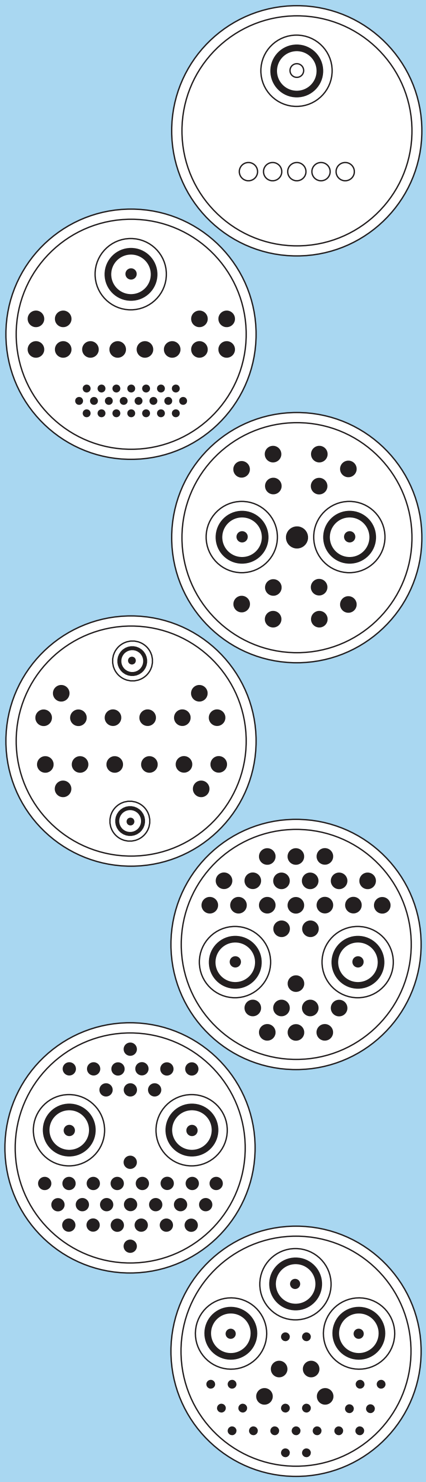
6S

	Reference	Coaxial: Number of contacts	Coaxial: Impedance (Ω)	Coaxial: Rated current (A)	Coaxial: Type (see page 27)	Coaxial: Cable group	Low Voltage: Number of contacts	Low Voltage: ø A (mm)	Low Voltage: Test voltage (kV rms)	Low Voltage: Test voltage (kV dc)	Low Voltage: Rated current (A)
	284 294	4	50 75	12 7	A	4-6 3-4-5	–	–	–	–	–
	882	4	75	7	A	3-4-5	26	0.9	0.8	1.2	2
	887	1 4	50 50	26 5	A3 A1	7 3 } 9	7	2.0	1.5	2.1	10
	890	6	50	5	A1	1-2-3	4	4.0	1.5	2.1	16
	893	6	50	5	A1	1-2-3	20	1.6	1.5	2.1	5
	238	8	50	6	A0	1-3-4	–	–	–	–	–
	899	8	50	5	A1	1-2-3	20	1.6	1.5	2.1	5

Mixed: coax + LV, multi coax



6E

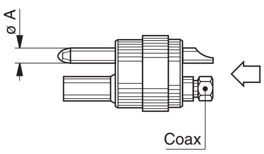
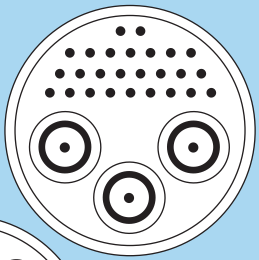
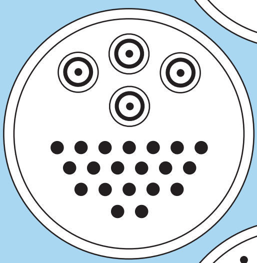
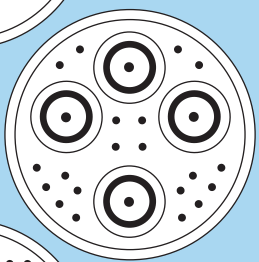
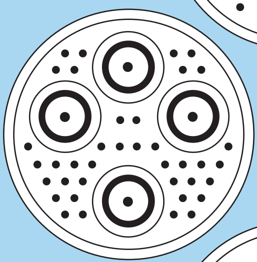
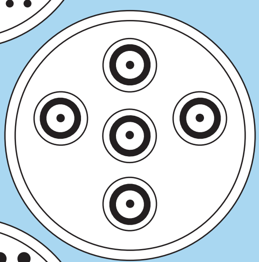
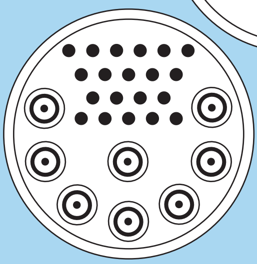


Reference	Coaxial: Number of contacts	Coaxial: Impedance (Ω)	Coaxial: Rated current (A)	Coaxial: Type (see page 27)	Coaxial: Cable group	Low Voltage: Number of contacts	Low Voltage: ø A (mm)	Low Voltage: Test voltage (kV rms)	Low Voltage: Test voltage (kV dc)	Low Voltage: Rated current (A)
805[1)]	1	75	7	A	3-4-5	5	2.0	1.5	2.1	10
831	1	75	7	A	3-4-5	24 12	0.9 2.0	0.8 1.5	1.2 2.1	2 10
843	2	75	7	A	3-4-5	12 1	2.0 3.0	1.5 1.5	2.1 2.1	10 14
847	2	50	5	A1	1-2-3	17	2.0	1.5	2.1	10
856	2	75	7	A	3-4-5	26	2.0	1.5	2.1	7
857	2	75	7	A	3-4-5	33	1.3	1.2	1.8	4
865	3	75	7	A	3-4-5	21 4	1.3 2.0	1.2 1.2	1.8 1.8	4 10

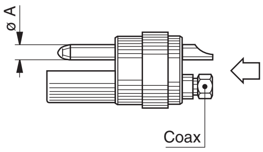
Note:[1)] The type 6E.805 is delivered with female contacts in the plug.

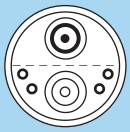
Mixed: coax + LV, multi coax

6E

		Coaxial					Low Voltage				
	Reference	Number of contacts	Impedance (Ω)	Rated current (A)	Type (see page 27)	Cable group	Number of contacts	ø A (mm)	Test voltage (kV rms)	Test voltage (kV dc)	Rated current (A)
	866	3	75	7	A	3-4-5	26	1.3	1.2	1.8	4
	880	4	50	5	A1	1-2-3	20	1.3	1.2	1.8	4
	882	4	75	7	A	3-4-5	20	0.9	0.8	1.2	2
	884	4	75	7	A	3-4-5	38	0.9	0.8	1.2	2
	235	5	50	6	A0	1-3-4	–	–	–	–	–
	899	8	50	5	A1	1-2-3	20	1.6	1.5	2.1	5

Mixed: coax + LV + HV



Type	Layout	Reference	Coax: Number of contacts	Coax: Impedance (Ω)	Coax: Rated current (A)	Coax: Type (see page 27)	Coax: Cable group	Low voltage (LV): Number of contacts	Low voltage (LV): ø A (mm)	High voltage (HV): Number of contacts	High voltage (HV): ø A (mm)
4S 4E		934	1	50	5	A1	1-2-3	4	0.9	1	2.0

Coaxial contacts for S and E series

Type	Impedance (Ω)	ø A (mm)	Cond. fixing	Screen fixing	Cable group	Cond. ø maxi	Dielectric ø maxi	Sheath ø Mini	Sheath ø Maxi	VSWR (f=GHz)	Test voltage (kV rms)	Rated current (A)
A1	50	0.7	solder	collet	1 2 3	0.55 0.55 0.55	1.90 1.90 1.90	2.5 1.7 2.2	3.0 2.1 2.6	1.01 +0.127f	0.9	5
A0	50	0.9	solder	collet	2 3 4	0.95 0.95 0.95	2.95 2.95 2.95	1.7 2.7 3.3	2.1 3.1 4.1	1.06 +0.1f	3.0	6
A	50	1.6	solder	collet	4 6	1.35 1.35	3.95 3.95	3.3 4.3	4.1 5.1	1.01 +0.146f	1.8	12
A	75	1.3	solder	collet	3 4 5	1.05 1.05 1.05	3.95 3.95 3.95	2.2 3.3 5.3	2.6 4.1 6.1	1.01 +0.19f	2.4	7
A3	50	3.0	solder	collet	7	2.60	8.10	10.0	10.6	1.06 +0.5f	3.0	15

Recommended coaxial cables for 00 Series

	Type		LEMO cable Part Number	LEMO cable group	Impedance (Ω)	Conductor ø (mm)	Dielectric ø (mm)	Screen ø (mm)	Sheath ø (mm)
Standard	RG 58 C/U		CCX.50.RG5.8CU50N	6	50 ± 2	0.90	2.95	3.60	5.00
Standard	RG 142 B/U		CCX.50.RG1.42BU50M	7	50 ± 2	0.95	2.95	3.53 / 4.30	5.00
Standard	RG 174 /U		CCX.50.RG1.74U25N	3	50 ± 2	0.48	1.50	2.00	2.55
Standard	RG 174 A/U		CCX.50.RG1.74AU27N	3	50 ± 2	0.48	1.50	2.00	2.80
Standard	RG 178 B/U		CCX.50.RG1.78BU18M	1	50 ± 2	0.30	0.84	1.30	1.80
Standard	RG 179 B/U		CCX.75.RG1.79BU26M	2	75 ± 3	0.30	1.50	2.00	2.50
Standard	RG 187 A/U		CCX.75.RG1.87AU26B	2	75 ± 3	0.30	1.50	2.00	2.60
Standard	RG 188 A/U		CCX.50.RG1.88AU24B	4	50 ± 2	0.54	1.50	2.00	2.60
Standard	RG 195 A/U		CCX.95.RG1.95AU37B	5	95 ± 5	0.30	2.52	3.10	3.70
Standard	RG 196 A/U		CCX.50.RG1.96AU20B	1	50 ± 2	0.30	0.84	1.30	1.95
Standard	RG 316 /U		CCX.50.RG3.16U26M	4	50 ± 2	0.54	1.50	2.10	2.60
Non standard	Huber+Suhner	G02232D-60		8	50 ± 2	0.50	1.50	1.95 / 2.40	3.10
Non standard	Huber+Suhner	K01152-07		9	50 ± 5	0.19	0.52	0.90	1.25
Non standard	Storm	421-099		8	50 ± 2	0.50	1.52	2.00 / 2.50	3.05

Note: for more details on cable properties, see NIM-CAMAC catalogue.

Recommended triaxial cables for 00 Series

	Type	LEMO cable Part Number	Impedance (Ω)	Conductor ø (mm)	Dielectric ø (mm)	Screen 1 ø (mm)	Screen 2 ø (mm)	Sheath ø (mm)
Standard	RGT 316		50 ± 2	0.51	1.50	2.05	3.15	3.60
Standard	RGT 403		50 ± 2	0.30	0.84	1.30	2.35	2.95
Standard	RGT 174	017 410 LEDE	50 ± 2	0.48	1.55	1.90	2.90	3.90
Standard	RGT 178	017 820 LEDE	50 ± 2	0.30	0.90	1.37	2.30	2.80
Standard	Huber + Suhner G 02332		50 ± 2	0.49	1.50	2.00	3.05	4.25
Standard	SMT 50		50 ± 2	0.16	0.52	0.85	1.35	1.60

Recommended coaxial cables for S and E Series

Type	LEMO cable Part Number	LEMO cable group	Impedance (Ω)	Conductor ø (mm)	Dielectric ø (mm)	Screen ø (mm)	Sheath ø (mm)
RG 11 A/U	311 100 LEDE	8	75 ± 2	1.17	7.25	8.15	10.10
RG 12 A/U		0	75 ± 3	1.20	7.25	8.20	11.80
RG 58 C/U	CCX.50.RG5.8CU50N	6	50 ± 2	0.90	2.95	3.60	5.00
RG 59 B/U	CCX.50.RG5.9BU62N	7	75 ± 3	0.60	3.70	4.50	6.20
RG 115 A/U		8	50 ± 2	2.25	6.50	8.00	10.50
RG 122 /U		4	50 ± 2	0.80	2.50	3.20	4.10
RG 142 B/U	CCX.50.RG1.42BU50M	6	50 ± 2	0.95	2.95	4.30	5.00
RG 144 /U		8	75 ± 3	1.35	7.25	8.00	10.40
RG 165 /U		8	50 ± 2	2.46	7.25	8.00	10.40
RG 174 A/U	CCX.50.RG1.74AU27N	3	50 ± 2	0.48	1.50	2.00	2.80
RG 178 B/U	CCX.50.RG1.78BU18M	1	50 ± 2	0.30	0.84	1.30	1.80
RG 179 B/U	CCX.75.RG1.79BU26M	5	75 ± 3	0.30	1.50	2.00	2.50
RG 187 A/U	CCX.75.RG1.87BU26M	5	75 ± 3	0.30	1.50	2.00	2.60
RG 188 A/U	CCX.50.RG1.88AU26B	2	50 ± 2	0.54	1.50	2.00	2.60
RG 196 A/U	CCX.50.RG1.96AU20B	1	50 ± 2	0.30	0.84	1.30	1.95
RG 213 /U	213 000 LEDE	8	50 ± 2	2.25	7.25	8.20	10.30
RG 214 /U		9	50 ± 2	2.25	7.25	8.80	10.80
RG 216 /U		9	75 ± 3	1.20	7.25	8.80	10.80
RG 223 /U		7	50 ± 2	0.89	2.95	4.30	5.40
RG 225 /U		9	50 ± 2	2.40	7.25	8.80	10.90
RG 302 /U		6	75 ± 3	0.64	3.70	4.40	5.10
RG 316 B/U	CCX.50.RG3.16U26M	2	50 ± 2	0.60	1.60	2.10	2.80
RG 400 /U		6	50 ± 2	1.00	2.98	4.20	5.00
HF-2114 Dätwyler		3	50 ± 2	0.48	1.30	1.90	2.70
HF-5408/1 Dätwyler		7	75 ± 3	0.60	3.80		5.60
2YCCY 0.4/2.5 Siemens		6	75 ± 2	0.40	2.50	3.70	4.50

Recommended coaxial cables for mixed coax, multi coax for S and E Series

Type	LEMO cable Part Number	LEMO cable group	Impedance (Ω)	Conductor ø (mm)	Dielectric ø (mm)	Screen ø (mm)	Sheath ø (mm)
RG 58 C/U	CCX.50.RG5.8CU50N	6	50 ± 2	0.90	2.95	3.60	5.00
RG 59 B/U	CCX.50.RG5.9BU62N	5	75 ± 3	0.60	3.70	4.50	6.20
RG 122 /U		4	50 ± 2	0.80	2.50	3.20	4.10
RG 142 B/U	CCX.50.RG1.42BU50M	6	50 ± 2	0.95	2.95	4.30	5.00
RG 174 A/U	CCX.50.RG1.74.AU27N	1	50 ± 2	0.48	1.50	2.00	2.80
RG 178 B/U	CCX.50.RG1.78BU18M	2	50 ± 2	0.30	0.84	1.30	1.80
RG 179 B/U	CCX.75.RG1.79BU26M	3	75 ± 3	0.30	1.50	2.00	2.50
RG 187 A/U	CCX.75.RG1.87BU26M	3	75 ± 3	0.30	1.50	2.00	2.60
RG 188 A/U	CCX.50.RG1.88AU26B	1	50 ± 2	0.54	1.50	2.00	2.60
RG 196 A/U	CCX.50.RG1.96AU20B	2	50 ± 2	0.30	0.84	1.30	1.95
RG 213 /U	213 000 LEDE	7	50 ± 2	2.25	7.25	8.20	10.30
RG 223 /U		6	50 ± 2	0.89	2.95	4.30	5.40
RG 302 /U		5	75 ± 3	0.64	3.70	4.40	5.10
RG 316 /U	CCX.50.RG3.16U26M	1	50 ± 2	0.54	1.50	2.10	2.60
RG 400 /U		5	50 ± 2	1.00	2.98	4.20	5.00

Note: the cable group number corresponding to the chosen cable must be written in the variant position, see pages 15 and 17.

Recommended triaxial cables for S and E Series

Type	LEMO cable Part Number	LEMO cable group	Impedance (Ω)	Conductor ø (mm)	Dielectric ø (mm)	Screen 1 ø (mm)	Screen 2 ø (mm)	Sheath ø (mm)
RGT 178	CTR.50.RG1.78BU29M	1	50 ± 2	0.30	0.90	1.37	2.30	2.80
RGT 174	CTR.50.RG1.74AU39N	2	50 ± 2	0.48	1.55	1.90	2.90	3.90
9222 Belden		3	50 ± 2	0.94	2.90	3.50	5.20	6.10
HF-2318 Dätwyler		5	50 ± 2	1.60	4.80	–	–	10.20
8215 Belden		4	75 ± 3	0.72	4.55	–	–	8.43
8232A Belden		4	75 ± 3	0.80	3.70	–	–	8.00
HF-2426 Dätwyler		4	75 ± 3	0.60	3.70	–	–	8.00
RGT 179		6	75 ± 3	0.30	1.60	2.10	3.10	3.60
Triax 8 Nokia	375 029 LEDE	4	75 ± 3	1.00	4.50	5.20	7.20	8.50
9267 Belden		5	75 ± 3	0.84	3.70	–	–	9.20
Triax 11 Nokia	466 140 LEDE	7	75 ± 3	1.40	6.50	7.20	9.40	10.90
8233A Belden		7	75 ± 3	1.60	7.30	–	–	12.10

Product safety notice

PLEASE READ AND FOLLOW ALL INSTUCTIONS CAREFULLY AND CONSULT ALL RELEVENT NATIONAL AND INTERNATIONAL SAFETY REGULATIONS FOR YOUR APPLICATION.
IMPROPER HANDLING, CABLE ASSEMBLY, OR WRONG USE OF CONNECTORS CAN RESULT IN HAZARDOUS SITUATIONS.

1. **SHOCK AND FIRE HAZARD**
   Incorrect wiring, the use of damaged components, presence of foreign objects (such as metal debris), and / or residue (such as cleaning fluids), can result in short circuits, overheating, and / or risk of electric shock.
   Mated components should never be disconnected while live as this may result in an exposed electric arc and local overheating, resulting in possible damage to components.

2. **HANDLING**
   Connectors and their components should be visually inspected for damage prior to installation and assembly. Suspect components should be rejected or returned to the factory for verification.
   Connector assembly and installation should only be carried out by properly trained personnel. Proper tools must be used during installation and / or assembly in order to obtain safe and reliable performance.

3. **USE**
   Connectors with exposed contacts should never be live (or on the current supply side of a circuit). Under general conditions voltages above 30 VAC and 42 VDC are considered hazardous and proper measures should be taken to eliminate all risk of transmission of such voltages to any exposed metal part of the connector.

4. **TEST AND OPERATING VOLTAGES**
   The maximum admissible operating voltage depends upon the national or international standards in force for the application in question. Air and creepage distances impact the operating voltage; reference values are indicated in the catalog however these may be influenced by PC board design and / or wiring harnesses.
   The test voltage indicated in the catalog is 75% of the mean breakdown voltage; the test is applied at 500 V/s and the test duration is 1 minute.

5. **CE MARKING CE**
   CE marking CE means that the appliance or equipment bearing it complies with the protection requirements of one or several European safety directives.
   CE marking CE applies to complete products or equipment, **but not to electromechanical components, such as connectors**.

6. **PRODUCT IMPROVEMENTS**
   The LEMO Group reserves the right to modify and improve to our products or specifications without providing prior notification.

Data subject to change

LEMO HEADQUARTERS

SWITZERLAND
LEMO SA
Chemin des Champs-Courbes 28 - P.O. Box 194 - CH-1024 Ecublens
Tel. (+41 21) 695 16 00 - Fax (+41 21) 695 16 02 - e-mail: info@lemo.com

LEMO SUBSIDIARIES

AUSTRIA
LEMO Elektronik GesmbH
Lemböckgasse 49/E6-3
1230 Wien
Tel: (+43 1) 914 23 20 0
Fax:(+43 1) 914 23 20 11
sales@lemo.at

CHINA
LEMO Trading (Shanghai) Co., Ltd
LEMO Electronics (Shanghai) Co., Ltd
5th Floor, Block 6, City of ELITE,
1000 Jinhai Road, Pudong
Shanghai, China 201206
Tel: (+86 21) 5899 7721
Fax: (+86 21) 5899 7727
cn.sales@lemo.com

DENMARK
LEMO Denmark A/S
Gammel Mosevej 46
2820 Gentofte
Tel: (+45) 45 20 44 00
Fax: (+45) 45 20 44 01
info-dk@lemo.com

FRANCE
LEMO France Sàrl
24/28 Avenue Graham Bell
Bâtiment Balthus 4
Bussy Saint Georges
77607 Marne la Vallée Cedex 3
Tel: (+33 1) 60 94 60 94
Fax: (+33 1) 60 94 60 90
info-fr@lemo.com

GERMANY
LEMO Elektronik GmbH
Hanns-Schwindt-Str. 6
81829 München
Tel: (+49 89) 42 77 03
Fax: (+49 89) 420 21 92
info@lemo.de

HONG KONG
LEMO Hong Kong Ltd
Room 33. 7th Floor
HITEC, 1 Trademart Drive
Kowloon Bay - Hong Kong
Tel: (+852) 2174 0468
Fax: (+852) 2174 0492
hk.sales@lemo.com

HUNGARY
REDEL Elektronika Kft
Vágóhíd u. 26
1201 Budapest XX.
Tel: (+36 1) 421 47 10
Fax: (+36 1) 421 47 57
info-hu@lemo.com

ITALY
LEMO Italia srl
Viale Lunigiana 25
20125 Milano
Tel: (+39 02) 66 71 10 46
Fax: (+39 02) 66 71 10 66
sales.it@lemo.com

JAPAN
LEMO Japan Ltd
4-10-3, Takaido Higashi,
Suginami-ku, Tokyo, 168-0072
Tel: (+81 3) 53 44 39 33
Fax: (+81 3) 53 44 39 35
lemoinfo@lemo.co.jp

NETHERLANDS / BELGIUM
LEMO Connectors Benelux
De Trompet 2108
1967 DC Heemskerk
Tel. (+31) 251 25 78 20
Fax (+31) 251 25 78 21
info@lemo.nl

NORWAY / ICELAND
LEMO Norway A/S
Stanseveien 6B
0975 Oslo
Tel: (+47) 22 91 70 40
Fax: (+47) 22 91 70 41
info-no@lemo.com

SINGAPORE
LEMO Asia Pte Ltd
4 Leng Kee Road,
#06-09 SiS Building
Singapore 159088
Tel: (+65) 6476 0672
Fax: (+65) 6474 0672
sg.sales@lemo.com

SPAIN / PORTUGAL
IBERLEMO S.A.
Brasil, 45, 08402 Granollers
Barcelona
Tel: (+34 93) 860 44 20
Fax: (+34 93) 879 10 77
info-es@lemo.com

Madrid Office
Antonio López, 96, 28019 Madrid
Tel: (+34 91) 469 99 19
Fax: (+34 91) 469 99 59

SWEDEN / FINLAND
LEMO Nordic AB
Mariehällsvägen 39A
168 65 Bromma
Tel: (+46 8) 635 60 60
Fax: (+46 8) 635 60 61
info-se@lemo.com

SWITZERLAND
LEMO Verkauf AG
Grundstrasse 22 B
6343 Rotkreuz
Tel: (+41 41) 790 49 40
Fax: (+41 41) 790 49 43
ch.sales@lemo.com

UNITED KINGDOM
LEMO UK Ltd
Unit 15 & 16
Hazelwood Trading Estate
Worthing, West Sussex, BN14 8NP
Tel: (+44 1903) 23 45 43
Fax: (+44 1903) 20 62 31
lemouk@lemo.com

USA
LEMO USA Inc
P.O. Box 2408
Rohnert Park, CA 94927-2408
Tel: (+1 707) 578 88 11
(+1 800) 444 53 66
Fax:(+1 707) 578 08 69
info@lemousa.com

LEMO DISTRIBUTORS

AUSTRALIA, BRAZIL, CANADA, CZECH REPUBLIC, GREECE, INDIA, ISRAEL, NEW ZEALAND, POLAND, RUSSIA, SOUTH AFRICA, SOUTH KOREA, TAIWAN, TURKEY, UKRAINE

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